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ABSTRACT

Two educational models are described: Alternative S, the structured situation stands for security and sureness gained through the equating of system and structure and through organization which preserves the status quo. Alternative O, openness, stands for ongoingness, and opportune moments for growth. Values and latent dangers of these two diverse models are presented, followed by a description of educational experiences that would follow from their underlying assumptions. Educator personalities and compatible situational contexts for each alternative are described. The two belief systems are examined relative to a wide variety of current educational issues to illustrate the extent to which different basic assumptions influence how problems are conceptualized and approached. The alternative systems are also projected against a broad socialization perspective, which reveals diverse consequences for human development and society. Implications of these two world views for the analysis of policy decisions are layed out. (Author/JY)

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TWO CONTRASTING EDUCATIONAL MODELS: APPLICATIONS AND POLICY IMPLICATIONS

By: VIVIAN S. SHERMAN
CONSULTANT

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Not the being conscious at all, but the being conscious of many things together is held to be the difficult thing . . .

William James
Principles of Psychology

The exploration of a theoretical position diametrically opposed to one's own can yield new ideas; it can also define, sharpen, and strengthen comprehension of one's own stance. Both results are highly desirable in the teaching world.

Fargo, Behrns, and Nolen
Behavior Modification in the Classroom

Intermediate between science and rhetoric, dialectic can serve both.

The synthesis of thesis and antithesis results in a more complete truth.

The Great Ideas
Syntopicon I

PREFACE

The history of this document may be of interest to the reader. It all began when I returned from visiting two training sessions for teachers of Follow Through classes. I was telling Dr. Willis W. Harman, Director of the Educational Policy Research Center, that although I had observed educational models described as extreme opposites, they seemed, in fact, to be almost identical in terms of what participants were experiencing. Each training director was trying to provide teachers direct experience with the model's characteristic techniques, i.e., systematic external management of contingencies and a semi-autonomous learner approach. Techniques, however, seemed inconsequential in terms of what appeared to be operating in these diverse situations. The really powerful trans-actional variables seemed to involve a complex of discrete behaviors, attitudes, and characteristics. These included direct eye contact when each director listened intently to trainees and addressed them personally by name, soft-spoken voice, vocal tone suggestive of sincerity and caring, warm smile and facial responsiveness, strong expectation that trainees could apply the methods and find in them solutions for their practical classroom problems, body movements and manners that projected both sense of commitment and self-confidence, and an aura of quiet, secure strength. They both presented highly desirable models for identification; it was a joy to observe them in action. Such variables, however, were neither described as part of the curriculum experience or included in the assessment of process variables.

Dr. Harman, whose mind seems continuously to search for deeper issues and broader concerns, quickly responded to my informal observations with, "Are you saying that programs are being described and evaluated on certain conventional dimensions when, in fact, there may be subtle variables operating that are far more powerful than what is being assessed? Is it possible we have been looking at the wrong variables in the educative process?"

"Subtle variables" soon became the subject of informal discussions among staff members. I remember Matthew B. Miles, who was working with the Center at that time, saying at one point, "These really aren't subtle, they're more like sledge-hammer variables." The terminology was changed to "unexamined variables," and I began the search for a

context in which these elusive factors might be seen more clearly. The bulk of this work was done in the spring of 1970. This document is evidence of some steps taken along the way: trying to make explicit what seems implicit, seeking contrast for perspective, analyzing, synthesizing, restructuring, and transforming bipolarity into dialectic. I have tried continuously to project ideas against the raw material of my years of practical experience in formal education--at all levels from preschool through higher education and in a wide range of roles, areas of concern, organizational structures, and situations. I have lived both extremes of these contrasting models, as well as many varied combinations of the two--in teaching, in my relationships with colleagues and administrators along the way, in the lives of my students, and as a parent seeing both response and effect of the System on my own children.

The intent has been to trust both logical analysis and intuition, which likely is reflected in the results along with the many conflicts I have known intimately. What has impressed me most in this writing is the usefulness of the dialectic as a tool for gaining perspective and momentum in the search for understanding. Its power has propelled me far beyond what is included here--into a fascination for discovering new models to transcend traditional dichotomies, revitalize education, and create a stronger sense of direction.

Affiliation with the Center has given me a strong sense of urgency for constructive action, far greater awareness of the primacy of value considerations in education, and appreciation of the need for deeper understanding of ways in which societal forces impinge upon the institution wherever there is interface and overlap with the broader culture. My colleagues have provided me much stimulation. I have endeavored to link my concerns with their work by seeking clearer interpretation of what is at this point in history in order that we can move more effectively toward what might be. Present and future are of the same strand.

I am particularly indebted to Dr. Harman for his inspiration and the opportunity to make a contribution through Stanford Research Institute. The continuous support and encouragement of Arnold Mitchell, Assistant Director, was invaluable as I worked through the complexities necessary to integrate what was tacitly known with objective data so as to generate the particular conceptualizations which have emerged. Both of these men patiently read drafts of orderings and re-orderings. Other staff members read and reacted. Two research analysts who were particularly helpful were Dan Rink, who gave me organizational tips which created a base for the dialectic, and Norman McEachron, who nudged me into it. Jane Stallings, a member of the SRI staff involved in Follow Through-Head Start evaluation, provided helpful suggestions.

Several people outside of Stanford Research Institute kindly critiqued the manuscript. Dr. Henry M. Gunn, under whom I served as a teacher when he was Superintendent of the Palo Alto Unified School District, read an earlier draft. His administrative experience led him to emphasize that teachers can make or break systems and urged stress upon the ability and genius of the teacher over any system. Dr. Lawrence G. Thomas, Stanford University, who some time ago (when I was a doctoral student) made me aware of philosophy's importance, kindly criticized portions of the final manuscript. Special appreciation goes to Dr. Nicholas J. Anastasiow, Director of the Institute for Child Study, Indiana University, whom I sought as a reader because of his rich background experience at all levels of the institution. My question to him was, "Does it ring true?" It did, and the process of exploring regions between the extremes continues.

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I CHALLENGE TO CHANGE

Schools have lost touch with the times. They appear to have become increasingly dysfunctional and out of harmony with the shifting values and trends of the environment that surrounds them and the institutions they overlap. Intimate associations between school and society that may have existed in the past have broken down, and the relationship that once was symbiotic, and that did not develop by accident, no longer serves mutual advantage. As an institution that is integral to the culture--tightly enmeshed with other basic institutions--education is a sensitive barometer to the well-being of society and of the individuals who compose it. The call for drastic modification is emphatic at all levels of concern both within the institution and outside of it. Although constructive efforts are being made to meet these demands for change, the problems are staggering and time for solution is frighteningly short.¹

Current cultural disequilibrium and prevalent social ills (rapid change and anomie, limited meaning and purpose in life, alienation and prejudice, violence and revolt, apathy and fragmented functioning) are not being dealt with adequately by education. If research on likely futures and long-range projections are accurate, these pathological symptoms are but mild forerunners of the turmoil and dangers ahead. The urgency for action to utilize the disequilibrium constructively in coping with these critical problems and with the even more central issue confronting mankind--survival itself--demands boldness, imagination, and decisiveness.²

¹ John Platt emphasizes the urgent need to mobilize the best minds available to solve crisis problems coming upon us as a storm from every direction and feels if we cannot get through this next decade we may never realize mankind's potential. "Our Multiple Crisis World", Current, February, 1970, pp. 3-17.

² James F. T. Bugental makes a plea for such boldness in "The Humanistic Challenge of the Seventies," Unpublished Paper, Educational Policy Research Center, Stanford Research Institute, Menlo Park, California, 1970, p. 3. Donald N. Michael urges radical changes in our educational philosophy and institutions if we are to survive in the planless and disrupted world of the future. He feels we are ill equipped to embark on the radical long-range social planning that is needed. The Unprepared Society: Planning for a Precarious Future, New York, Basic Books, Inc., 1968.

To act wisely and imaginatively demands realization of the nature of our situation and new conceptualization of our problems and of what is possible. Strong and pervasive conventional images, however, limit our perspective and allow us only a static view. The crucial challenge is to gain better understanding of issues and dilemmas which underlie the current crisis of education.

Philosophy and Man's Vision

Kaplan³ emphasizes that one of the basic tasks of philosophy is clarification of our ideas and explicit formulation of basic assumptions, the purpose being to help us see the world steady and whole. The philosophic function or activity of a culture takes place at the interface between the life of the mind and the arts of practice, which is where the policy maker is. Kaplan says, "More than ever we desperately need principles of integration by which we can achieve a consonance of our beliefs with one another, and of beliefs with action. The more difficult the problem is because of its scope and complexity, the more pressing is the need to cope with it somehow" (p. 18).

Basic beliefs determine what a man sees and how he acts. Those parts of reality that do not fit these beliefs tend to be ignored as anomalies or denied altogether. From underlying assumptions Man creates his images, languages, and taxonomies or classification schemes. These further structure and limit his view. With such tools the policy maker then can allocate, organize, point directions, raise questions, give answers, establish his modus operandi, and produce appropriate artifacts, instructional aids, and devices for learning. Since all of these match, it tends to assure the constancy and perpetuation of both beliefs and systems.

Underlying philosophical and psychological assumptions determining world views are too often implicit, and therefore impossible to discuss or modify. Educators have carefully avoided value controversy and explicit linkage of belief and action, especially when political, social, and economic consequences are involved. It is imperative for education that these basic premises be exposed so that they can be understood and reassessed. Only in this way can we see clearly where we are and where it is that we desire to go. Adaptive power is rooted in the ability to reconstruct beliefs and attitudes in the face of environmental shifts in values and forces toward change. Disequilibrium, rather than leading to

³ Abraham Kaplan, "The Travesty of the Philosopher", Change, January-February 1970, pp. 12-19.

debilitation, can bring stimulation and growth if we act in response to the present so as to attain what we desire in the future. Thus, vision that combines discerning foresight with a sense of history and awareness of the values at stake may be the most important attribute of the policy maker..

Strategy

This document is based on a stratagem that, hopefully, will illuminate the contemporary educational crisis and facilitate reasoned movement into a future of our choice. It is impossible to step clear of our culture or subculture and view it with complete objectivity, but we are not absolved from the obligation of trying to expose the implicit assumptions that determine both our perception and actions. We must, therefore, seek the most powerful sources of illumination that we can find, and the dialectic is one such source. Taking a comprehensive view of the System as it is, moving to an alternative vantage point, then playing one against the other dialectically, serves to reduce existing strictures upon perspective, clarify issues in controversy, reveal value dilemmas, and facilitate conflict resolution.

Two contrasting belief systems, taken to their extremes,⁴ become the thesis and antithesis of this dialectical interplay. Unless disagreements are understood at the level of basic assumptions and underlying values and unless conflict resolution is sought here, it is unlikely that decision-making will result in constructive adaptation on the part of those who seek or resist system modification and change. Synthesis in the middle ground of differences is what is needed. It is important to emphasize, therefore, that the intent is not to increase polarization

⁴ Joseph Lepreato and Letitia Alston, "Ideal Types and the Idealization Strategy," *Amer. Soc. Rev.*, Vol. 35, No. 1, February 1970, pp. 88-96. These authors advocate the use of logical extremes as an heuristic device for bringing together many relationships not ordinarily considered as complex wholes. They feel it is a methodological tool used very little in social research that offers a scheme which not only provides fresh perspective, but can be used as "guiding lights for systematic and cumulative research" (p. 92). The intent in this document is to explore some of the complexities in polarized educational tendencies, allow awareness of values and latent dangers inherent in either extreme, help remove traditional institutional blinders, and create new images and insights regarding what is possible.

between the two, to view them as a necessary dichotomy, or to set up a straw man, but to use each view as a powerful tool in making the other clear. Each is fleshed out in detail sufficient to link theory and belief to practice.

Structure and Openness

The thesis in this document is a set of assumptions, values, and procedural preferences that fit the construct of "structure" and the antithesis is a similar set that can be described as "openness". These two constructs usefully characterize two types of education which frequently are described in general terms but seldom defined at an operational level. They cut across all levels of education. In life, seemingly disparate components and factors or sets of behaviors, attitudes, and predispositions tend to cluster in certain patterns which fit these constructs. Hence opposites can serve as large organizing ideas within which many specifics can be nested. Even though life is infinitely more complex and less pure than the description of these systems suggests and there is risk in oversimplification, the use of extremes does allow points to be made with greater emphasis and clarity. The scope between the two can become a sliding scale for self-location and self-examination, which are key responsibilities of decision-makers. Understanding alternative views and vantage points on current issues can lead to more keenly informed decision-making.

Both structure and openness have had an impact historically. They are dialectically engaged at the present time, and the tension between them will have a profound effect upon the future. Much of past controversy in education can be traced to attempts (and counter-actions) to bring about greater openness in the system. There are still many in our society who reject current pressures for more openness and flexibility, perceiving this as a potential threat to the school system, to societal structure, and perhaps to democracy (or the Republic) itself. Since both structure and openness are needed for constructive conflict resolution and adaptive modification of the system, it is imperative that understanding be sought, rather than acceptance or rejection of either extreme. At this point in time many people feel that greater openness actually may be the only route to survival. Although the pendulum-like swings toward extremes could be traced far back into history, openness today tends to be equated with what is termed "progressive" education. Since this educational approach is often discussed but seldom understood, it is important to see it in the societal and time context in which it developed.

Historical Perspective

The Progressive Movement of the late Nineteenth and early Twentieth centuries sought openness in numerous societal domains,⁵ e.g., the economic-industrial system, the legal profession, history, and the arts. Education was viewed as an adjunct to politics, and the politics of the day was geared to bringing about social reform and realizing the promise of democracy and American life. The school was recalled from its isolation and formalism to enter the struggle for a better life. This movement followed the growth of capitalism, industrialism, and monopoly and was accompanied by the growth of science and the spread of Darwinism. The Progressive Movement sought to preserve the dynamic condition of social forces, but was seriously interrupted by World War I and the Depression. The social and physical environments have altered markedly since then, and now Man is confronted with seemingly insoluble problems of racial strife, poverty, overpopulation, environmental pollution, and inadequate food supply. Man now lives with an ever-present threat of extinction by weapons of his own creation if he cannot solve the world's macroproblem.⁶ New values and social forces again are on the rise to create conditions to protect Man's rights, preserve his well-being, and help him actualize more of his human potential, i.e., to create more openness and freedom within both individuals and society. New models of Man and different conceptions of science are emerging. Although some components of the open system might be common to both periods of time, each system must be considered within its own situational context and time frame.

⁵ Morton White integrates philosophical views of influential men of this period representing diverse fields, i.e., Charles A. Beard, John Dewey, Oliver Wendell Holmes, Jr., James H. Robinson, and Thorstein Veblen, in Social Thought in America. The Revolt Against Formalism, Boston, Beacon Hill Press, 1959. Expressionism and Freudianism were two other main intellectual streams of this period.

⁶ Willis W. Harman, Director, Educational Policy Research Center, Stanford Research Institute, Menlo Park, California, outlines critical dimensions of the world macroproblem and discusses pathogenic aspects of prevailing cultural values and assumptions in "Context For Education in the Seventies," Needs of Elementary and Secondary Education for the Seventies, A Compendium of Policy Papers, Committee on Education and Labor, House of Representatives, Ninety-First Congress, First Session, March 1970, pp. 351-363.

The global constructs of structure and openness, while useful, also obscure real distinctions. For example, there were many diverse examples of "open" programs subsumed under the progressive label.⁷ Even though there existed extremely permissive child-centered schools and classrooms which justified some of the familiar caricatures of progressive education, there also were some progressive schools that by today's standards would seem quite structured. There was significant disagreement among the progressive-education leaders on technical-methodological issues.⁸ There were discrepancies between the large organizing ideas and the means employed and a philosophical statement came late in the movement. When it did appear it was in the form of guiding principles, not assumptions about the nature of Man. In 1938 the Philosophy Committee of the Progressive Education Association finally stated the following conviction:

⁷ Lawrence A. Cremin's chapter on the phenomenal growth of American education during the quarter-century following World War I, "The Changing Pedagogical Mainstream," describes this diversity in both private and public schools (Transformation of the School, Progressivism in American Education, 1876-1957, New York, Alfred A. Knopf, 1961).

⁸ Ibid. Boyd H. Bode, for example, felt the approach sometimes should be free and informal, sometimes controlled and regulated, but never stereotyped. To him, the project method disseminated by Kilpatrick represented a one-sided absorption in the individual pupil and was based upon a naive belief in spontaneous intellectual germination that misconstrues the real nature of thought. He felt the guiding ideals of education had to be based upon hard philosophical thought. (pp. 222-224). John Dewey continuously urged a systematic organization of activities and subject matter to assist children in achieving their individuality, thorough acquaintance with the disciplines and a clear sense of what is to come later, utilization of the common experiences of childhood, and a guiding conception of the kind of individual to be developed (p.125). He never fully reached his followers, however, and it was William Heard Kilpatrick, a strong believer in the project method and intent on its spread, who created the dominant image that remains today about activity programs. He felt the purposeful act was at the heart of the educative process, rather than in subject-matter "fixed in advance" (pp. 216-218). In spite of methodological differences, however, all three of these men agreed that education consisted of a continuing reconstruction of experience (p.224). The guiding images and basic conception of human growth underlying the movement at this time somehow became secondary to a preoccupation in practice with the means employed.

Growth is the richest reward for the individual when, in concert with all others, he brings his intelligence and good will to the shared task of creating the values for which his culture is to strive.⁹

Efforts to create a more open system did not die with the dissolution of this formal organization, in spite of the decline in popularity of Progressive schools and persisting criticism of them. Today numerous attempts are being made both within and outside the public school system to adapt to value shifts in the direction of greater openness and freedom,¹⁰ although the tension is not commonly referred to as a dialectic between structure and openness. The issue of more general acceptance of (or resistance to) openness is likely to become even more critical in both the immediate and long-range future. The clusters of issues and variables submerged in these constructs need careful examination. Use of outworn epithets of an earlier day should be avoided in a new period in history, lest what is of value in openness be discarded along with its perceived abuses.

Structure and openness are of the utmost importance in balancing societal and individual needs. Education, since it must serve both, actually rests upon the horns of a dilemma--society versus individual. Too great an emphasis upon structure and organization geared to cultural cohesion and continuity can preclude encouragement of uniqueness; too much openness and freedom in the service of individuality can undermine system solidarity and disrupt the flow of formal communication with the young. Both structure and openness are needed, but balancing these two is precarious. Forces and events at different points in history combine to alter the needed ratio; it cannot be determined once and for all. Change is ever present, and parts (individuals) and whole (society) are a complex unity to which educators must attend if the institution is adequately to serve both. If complementarity and noncompetitiveness between structure and openness are assumed, the difficulty is reduced, but this rests upon a hypothesis that the well-being of individuals is indicative of societal well-being.

⁹ *Ibid.*, p. 267.

¹⁰ Bonnie Barrett Stretch provides an overview of recent efforts to create "a new kind of school that will allow a new kind of education, that will create independent, courageous people able to face and deal with the shifting complexities of the modern world" in "The Rise of the Free School," Sat. Review, June, 1970, pp. 76-79, 90-93.

Salience of the Constructs

There are two major reasons why "structure" and openness" are salient constructs. One is the fact that education, even though there is no single or solid over-riding system, appears to be suffering from a severe case of over-structuring in some of its vital components. The other is that the tendency toward rigidification exists at precisely the time when there is comprehensive need for greater openness and flexibility both to create a desirable future and to prevent the occurrence of a dismal one. Basic differences involved in the implementation of these two global constructs offer markedly different consequences for mankind and upon what lies ahead.

Forecasting of alternative futures¹¹ reveals the possibility of future histories ranging from an open society of exuberance and self-confidence to one of reluctance, self-defeat and closure. Present decisions clearly restrict options available to us in the future. Depending in part upon how we manage ourselves and our social and physical environments, we could move either toward growth or closure, toward vigorous progress or toward the stasis, retrogression, or darkness man has known at various points along his path to the present.

The ratio of structure to openness in the culture as a whole is a critical variable in determining our future. The question of what is an appropriate ratio, however, cannot be handled with a generalization about society as a whole. There are within our culture numerous ethnic and need-value-and-belief system subgroups to be considered, e.g., poverty, status-quo, materialist, and person-centered groups.¹² Groups with similar life-styles and preoccupations develop their mode of living to a great extent by the relative structure and openness involved in

¹¹ O. W. Markley, "Alternative Future Histories: Mapping for Planning and Action." Paper delivered to World Congress of Sociology (On Contemporary and Future Societies; Prediction and Social Planning), Varna, Bulgaria, September, 1970. Based on work in progress, Educational Policy Research Center, Stanford Research Institute, Menlo Park, California. Willis W. Harman, Alternative Futures and Educational Policy, Educational Policy Research Memorandum, 6767-6, April 1970.

¹² Robert E. Kantor, NVB's as Group Descriptors, Unpublished Paper, Educational Policy Research Center, Stanford Research Institute, Menlo Park, California, April, 1970. This classification system is helpful in breaking free of more limited socio-economic schemes that omit important beliefs, attitudes, and needs. These descriptors are further developed in Psychological Theories and Social Groupings, Research Memorandum EPRC-6747-5, November 1969.

their parents' childrearing practices and in other developmental experiences. These subgroups interact with one another, sometimes to mutual advantage and sometimes with considerable power struggle, conflict, and adverse results. Within each subgroup there also is much individual variation. The amount of structure and openness individuals experience has consequences both for what they can do and for what they desire to do. The breadth of individual and subgroup options and aspirations are reflected in societal options. "Structure" and "openness" are, indeed, salient constructs, but there are no simple prescriptions in determining appropriate ratios of the two for different individuals at different times in their development, in varying situations, or for different purposes. Human variation, which always has complicated education, continues to be a central issue and a relatively unexplored frontier in the current educational crisis.

The Plan

It is action, not just exhortation to change, that is needed. Visions--to become practical--must be specific enough that they ring true and general enough that they can be appropriately and creatively applied in diverse situations by those who see the desirability of modifying their actions to solve the particular problems they face. This is the balance sought in what follows. Analysis in this document, therefore, is both specific and synoptic, directed toward (1) understanding issues and relationships that cut across all levels and areas of concern and (2) creating a conceptual framework broad enough to encompass the entire institution of formal education and place it within the context of its broader environment. For that reason there is a deliberate setting aside of many overworked issues and arguments that too often divert attention from other important concerns and prevent the building of conceptual frameworks broad enough to place these issues in the context of the system. There is no discussion, for example, of the heredity-environment controversy. Similarly, much of the discussion tends to be about educational participants in general, rather than in terms of particular needs or characteristics of recognized groups, such as the orthopedically handicapped, mentally retarded, or academically talented. The ultimate intent is to be able to view all of these special groups and issues with fresh perspective and different categories. By so doing, we may define and deal with them differently.

Alternative S, illustrative of a structured system, and Alternative O, depicting an open arrangement, are presented in Sections II and III. Values and latent dangers of these two diverse sets of underlying assumptions are presented, followed by description of educational

experiences that follow from these basic beliefs. Educator personalities and compatible situational contexts for each alternative are described.

In Section IV the two belief systems are examined relative to a wide variety of current educational issues to illustrate the extent to which different basic assumptions influence how problems are conceptualized and approached. The alternative systems are also projected against a broad socialization perspective, which reveals diverse consequences for human development and society. Section V concludes the exploration of these two world views by laying out implications of the analysis for policy decision.

II ALTERNATIVE S--STRUCTURE

Alternative S, the structured situation, stands for security and sureness gained through the equating of system and structure--through organization which preserves the status quo. This is the world of order, pre-arrangement, externality, and objectivity. It seeks to prepare for the future by conserving the past, by inculcating the young with what is known, needed, and commonly valued. Its primary focus is upon important segments of accumulated knowledge, core beliefs, and skills required for success in the culture. Continuity, conservation, and societal fit are predominant concerns. Formal socialization agents are trained and certified to accomplish these ends; they are hired, judged, and retained on the basis of their willingness to assume this responsibility, of how neatly they fit the system, and of how adequately their charges acquire generally valued meanings and skills. Control and power are exerted through external regulation or position in the system. This is Alternative S in brief.

Basic Assumptions, Values, and Latent Dangers

A limited number of compatible assumptions upon which this system might rest, a set of beliefs consonant with and conducive to socialization within this world of order and structure, appears in Table I. Assume that although educators might be fully conscious of these assumptions and be able to explicitly state them, many would be implicit, realized only in a shadowy way as hidden components of action and attitude. Such underlying substructures, in fact, often explain the emergence and persistence of many practices that seem incompatible either with training or with professed values and behaviors. Although an abstraction, this set of implicit assumptions strongly resembles traditional education and current preoccupations of many people in our society. Much of the discussion of Alternative S, therefore, will be in these terms. The configuration of this system separates easily into compartments, solid rectangular boxes, bounds, and familiar hierarchies.

Policy makers need a dual-sighted focus in their examination of underlying assumptions. Abstraction from this network of beliefs reveals both values--those generally professed to be desired outcomes or characteristics of the system--and latent or abeyant dangers that are easy to ignore.

ASSUMPTIONS, VALUES

CULTURE

EDUCA¹

- For
- Fun
- Pre
- We

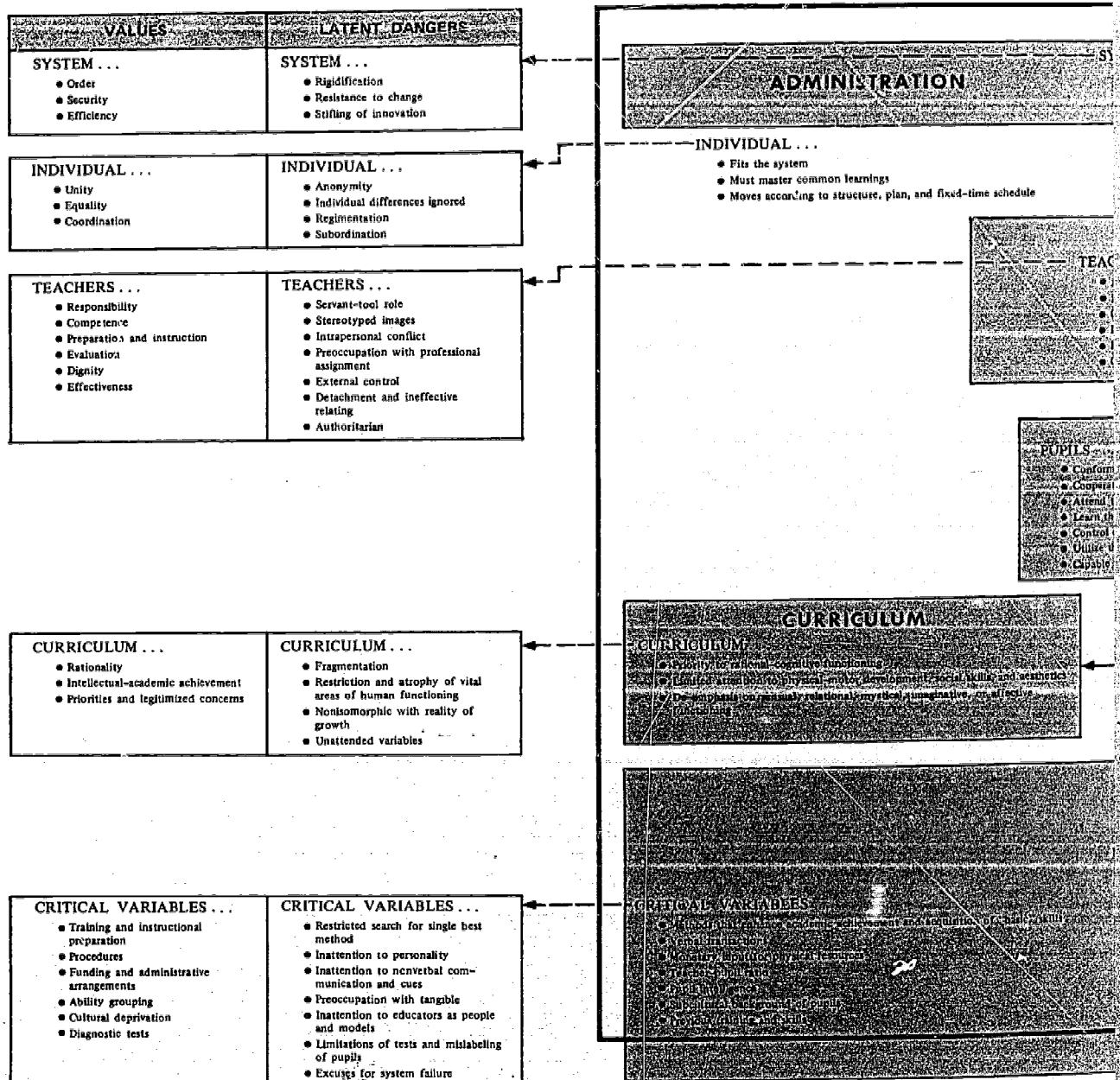


TABLE I
AND LATENT DANGERS OF ALTERNATIVE S

FORMAL EDUCATION

TION . . .
mal institution for transmitting culture
ctions apart from society
sures for future life in the culture
ns of acquiring cultural knowledge, skills, and core values

VALUES	LATENT DANGERS
<ul style="list-style-type: none"> Tradition and continuity Haven for growth Success Competitive skills 	<ul style="list-style-type: none"> Instrumental to cultural gain Abstraction from real life Unrelated to felt needs

SCHOOL SYSTEM

STEM . . .
• Structure and formal organization
• Standardization of the curriculum
• Controlled by specification, order, and regulation

AUTHORITY

MAN . . .

- Can detach self from physical being and relatedness to nature
- Highest capability is to function at an abstract-symbolic level
- Basically passive and receptive to environmental stimuli

MAN . . .

- Superiority over animals
- Intelligence
- Responsiveness

MAN . . .

- Alienation from nature
- Compartmentalized functioning
- Dependency

TEACHERS

HERS . . .
are formal socialization agents
are responsible for educating and mobilizing pupils
organize, plan, and present material that is to be learned
direct and judge pupils
control pupils

PUPILS . . .
are socialization objects
are controlled and educated by teachers
are responsible for learning
are passive and receptive to teachers
are controlled by teachers
are controlled and educated by teachers

INSTRUCTION

INSTRUCTION-LEARNING . . .
• Structure of content, order for the presentation of content

PUPILS . . .

- Citizenship
- Cooperation
- Self-control
- Attention
- Diligence
- Self-control
- Communication skills
- Equality

PUPILS . . .

- Conformity
- Dependence and ritualism
- Impaired intuitive-creative-poetic functioning
- Loss of playfulness
- Affective restriction and dissonance
- Cultural discontinuity
- Dysfunctional schooling

INSTRUCTION-LEARNING . . .

- Structure
- Method
- Simplification
- Individualized instruction
- Systematic

INSTRUCTION-LEARNING . . .

- Inhibits internal structuring
- Noneognizance of various learner styles
- Reductionist-molecular preoccupation
- Lack of attention to other ways of individualizing involving total individual
- Inattention to inductive-creative cognitive functioning

EVALUATION

EVALUATION . . .
• Comparison with standards
• Based on objective standards
• Instruments of evaluation
• Conducted by those responsible for the content of the curriculum

RESEARCH . . .
• Attention to reality
• Attention to the individual
• Attention to the situation
• Attention to the process
• Attention to the product
• Attention to the context
• Attention to the environment

EVALUATION . . .

- Feedback
- Objectivity and fairness
- Performance level
- Efficiency
- Achievement

EVALUATION . . .

- Failure and extermination for some
- Mediocrity from commonality
- Nonacknowledgment of uniqueness and diversity
- Limitation on development of internal standards
- Narrow focus on single criterion

RESEARCH . . .

- Generalizability
- Control and delimitation
- Scientific objectivity
- Reliability and validity
- Program effectiveness

RESEARCH . . .

- Noncontextual research leading to distorted meanings and conclusions
- Inattention to subjective and denial of felt reality
- Mistrust of human sensitivity and perceptive powers
- Focus on least important variables leading to repetitious or irrelevant studies
- Decisions to persist with more of same treatment to get results

or suppress. Some of each are presented to the right and the left of each grouping of assumptions. There are other professed values and latent dangers that could be added, but these examples illustrate the need for dual-sighted vision. Policy-makers at all levels might well ponder these in order to develop a profile of manifest dangers generally descriptive of education today.

Many of the latent dangers depicted in Table I actually are apparent today not only in the system, but also in the functioning of individuals in society at large, e.g., compartmentalized man, lack of emotional awareness and restricted feelings, estrangement from or indifference to nature and man's own physical being, loss of playfulness, and spontaneous joy, insufficient personal meaning in life, undeveloped intuitive-creative-poetic functioning, much interpersonal conflict, and damaged self-esteem. Discrepancy between education and real life is being loudly protested, particularly by those who seek depth of experiencing as well as abstraction. Certainly the system shows signs of rigidification and authoritarian resistance to change, especially in the face of deliberate attempts to rock its boat. Innovative approaches to conflict resolution, frequently unpopular with the general public, are not abundant. However, educational innovation never has fared well in the system.

Other dangers are not so easy to see. Dependency, for example, is less visible than the response of those who independently assert themselves in the face of authority. Evaluation and research, much of which currently is in question,¹ has tended to be accepted as adequate in spite of what many consider to be a glossing over of crucial variables that do not fit traditional models and avoidance of subjective data. There are other issues and potential dangers as yet unseen and only vaguely sensed.

¹ James Welsh reported existence of strong differences of opinion about educational research in government circles which lead to two controversial questions involved in federal support: What have you proved with the money that has been spent? What can you promise to achieve if you get more money? Educational Researcher, Vol. XXI, March 1970, p. 4. The desire for conclusive proof to match budgets for limited time periods creates a serious problem for longitudinal, developmental research. The issue of long-range planning and continued support was emphasized by James Gallagher in an interview reported in the June 1970 issue (above). Since existing programs are vulnerable to substitution by new people in government who have ideas of their own, broadened understanding of problems and philosophies of science is needed at this time. The issue of criteria and purposes seems to precede the question of proof.

Alternative S in Action

What would it be like to be a participant in an educational environment built from such assumptions? What guiding principles might a teacher use and what practices logically would follow? It is crucial that this translation of assumptions into action be done; education too frequently has mouthed vague generalities and failed to implement them. Policy-makers should understand what general terms mean in actual practice. For this reason Appendix A enumerates, opposite each of the basic assumptions which appear in Table I, enough guiding principles and practices to provide some feeling for the kind of experiences this belief system would provide.

Education under Alternative S essentially is a process of schooling.² It would be a familiar world to most--preoccupation with the intellect and bodies of knowledge, control of personal feeling and avoidance of controversy, hierachial group management, high conformity and diligence, segmentation of time and content, expectation that learners are to achieve and prepare for the future, common standards and criteria, and preoccupation with instructional method and materials. The underlying philosophical-psychological paradigm that man is essentially passive and can be made to respond only if externally stimulated is compatible with this instructional model. Similarly, key concepts, e.g., teachers, pupils, the administration, classrooms, grades, curriculum, instruction, objective evaluation, norms, basic skills, achievement, and IQ, match the overall structure. Categories for grouping, such as retarded, handicapped, disturbed, remedial, underachieving, and gifted, grow naturally from the normative core of the system. It is difficult to think in any other way than with these terms; this is the way the educational world is. These are the language tools with which policy decisions are made and practitioners perform their daily functions.

Compatible Educator Personality

There is an integral relationship between how an educator approaches and develops his program and his own personality.³ In order to function

² J. M. Stephens, The Process of Schooling. A Psychological Examination, San Francisco, Holt, Rinehart and Winston, Inc., 1967.

³ Nicholas J. Anastasiow, "Teaching: The Interaction of Performance and Personality," in Impact of Teacher Characteristics. Bloomington, Indiana: Bulletin of the School of Education, Indiana University, Vol. 45, No. 4, July 1969, pp. 1-46.

comfortably, consistently, and effectively in an Alternative S belief system, educators would need compatible personalities or life-styles. Implicitly, obedience, conformity, passive compliance, dependency, and tacit contracts to conform to role expectations seem to be required for all participants in this hierarchical system. To minimize internal conflict, it would be desirable to have a personality that tends toward structure and closure, distance and detachment, and reliance upon external authority. The traditional educator role calls for a well-ordered, directive individual who efficiently carries out his instructing, controlling, and evaluating tasks, someone able and willing to assume responsibility for directing young people toward prescribed goals within a highly structured environment, but who maintains a dignified distance from his students.

It is probable that those educators in this system who have the greatest impact upon the young, however, depart from generally unspoken role expectations. Those who, first of all, are vital human beings demonstrating in personal behaviors and attitudes a more appealing approach to life, who spark their students with emotion and conation or provide them opportunity to confront genuine challenge to change,⁴ are the most effective models for identification.

Powerful intangibles are released by giving responsibility for growing and changing to learners--a need for autonomy and self-direction, transmission of trust, and belief in human potential. These silent variables can have great impact upon the quality of experiencing, particularly if they are allowed to operate at strategic moments in people's lives. Yet, within traditional education, attempts to develop autonomous learners--to depart from prolonged dependence upon adults--have been relatively few and often have been met with scorn or fear by a considerable portion of the adult populace.⁵ Loss of control over the young is imminent when

⁴ A key means of developing students as individuals, which these authors stress as the primary aim of education, is through students' association with educators who are exemplars of realized humanity (Axelrod, J., M. B. Freedman, W. R. Hatch, J. Katz, N. Sanford, Search for Relevance: The Campus in Crisis, San Francisco: Jossey-Bass, Inc., 1969, pp. 7-14).

⁵ Development of autonomy requires conditions of freedom, which allows emergence of the unknown, unpredictable, and unique, all of which can threaten those who have known little freedom and openness in their own lives and exhibit a high degree of conformity. What does not meet their own established norms of academic achievement or expectations in school situations historically have been labeled as "shoddy" and "below standard."

freedom to choose is allowed. Freedom to grow is also freedom not to grow in directions desired by adults. How much internal momentum has been lost by sustained dependency we cannot accurately assess.

Emotional life would tend to be suppressed in an Alternative S system because emotions are not fully legitimized when the primary pre-occupation is with abstract, organized, objectified knowledge. Man, however, is a social being in need of human closeness. Expression and exchange of emotion allows this intimacy, yet within much of our culture emotional control is the norm, rather than its expression. In spite of a strong need to know and to be in touch with self, people learn to deny their deepest feelings. An externally oriented belief system would reinforce this tendency. Emotions, however, make themselves felt--in anxiety, impaired functioning, or unpremeditated eruptions of intense feeling. Such evidence is commonplace; we give considerable attention to the "emotionally disturbed." Those teachers most able to reach students in an Alternative S system--and make it work--are likely to have access to their own emotions and are sensitive to the emotional needs of their students, manifest a "with-it-ness" attitude, or engage in gentle mockery of the role.⁶

Emotions which may not be conscious to the person who shows them, frequently are revealed via nonverbal communication of double messages, i.e., discrepancies between words and facial, body, or vocal indicators of affect and attitude. Again, the most powerful teachers are likely to be those who are the most authentic--void of the phoniness so easily penetrated by the young. Nonverbal communication is a frontier area in research of great import in education of subcultural groups; they may be exposed frequently to "contracommunication," i.e., discrepant verbal and nonverbal cues. Internal binds are likely to have their counterparts in subtle binds placed about others via nonverbal cues, often without

⁶ The term "with-it-ness" was used to convey a sensitivity to the on-going momentum of groups and respect for where students were psychologically, as opposed to rigid interrupting behavior, in J. S. Kounin, W. V. Frieson, and A. E. Norton, "Managing Emotionally Disturbed Children in Regular Classrooms," Journal of Educ. Psychology, 57, 1966, pp. 1-13. It also must be kept in mind that behavior *per se* may be no more important than the attitude or affect conveyed with that behavior. An adult might act in a highly authoritarian manner with tongue in cheek and a twinkle in his eye, thereby indicating either healthy resistance to and limited detachment from the system or expression of individuality.

awareness on the part of the originator. It is possible that even a teacher operating in a free manner could emit such signals if her underlying personality tendencies were inconsistent with permissive practices. But it seems logical that this might occur most in a highly controlled situation where internal dynamics are supposed to be kept private. Rigid authoritarian role expectations actually may have created a threatening or perhaps schizophrenic world for students, particularly those with life-⁷ styles and value orientations at variance with those of the system.

We cannot assess the extent to which our prolonged and emphatic attempt to separate cognition and affect--typical of an Alternative S system--has contributed to intolerance of all kinds in our culture. Non-acceptance and lack of awareness of emotions seems to preclude acceptance of the emotional life of others. Ethnocentricity and emotional impoverishment are related; prejudice, discrimination, and dogmatism are accompanied by emotional binds.⁸ Blindness and insensitivity to feelings can cycle through the generations and leave a history of alienation, coldness, and emotional rejection. With the pressing need for increased sense of relatedness and community to curb the severe problems of alienation and violence in our culture, access to and acceptance of emotions assume major importance.

Tendencies toward a relatively closed cognitive style would be compatible with the considerable certitude, prestructuring, and delimitation in this system. Clearly, too much questioning would create annoyance, even though truly influential teachers likely have searching minds capable of making remote and unusual connections and are capable of releasing imaginative and intuitive powers of their students. A mind able to close itself to discordant input and cling with certainty to authority-established

⁷ Mario D. Fantani emphatically points out irrelevance and obsolescence of the educational institution in the lives of minority children and calls for more humanistic objectives. "Beyond Cultural Deprivation and Compensatory Education." Psychology in the Schools, Vol. 3, No. 6, June 1969.

⁸ Else Frenkel-Brunswik linked inability to express emotions, ambivalence toward parents, repression of hostility, and tendency to idealize parents with authoritarian outlook ("Intolerance of Ambiguity as an Emotional and Perceptual Personality Variable," J. Personality, 18, pp. 108-143). Milton Rokeach conceives of closed cognitive systems as a network of defense mechanisms for dealing with anxiety (The Open and Closed Mind, New York, Basic Books, Inc., 1960, pp. 69-70).

knowledge and beliefs, one that can operate comfortably with segmented bodies of data which may or may not be consistent with one another, would function most easily in a strict Alternative S environment. A person with such a mind also would tend to be readily accepted by those with status and jurisdiction to prescribe what shall constitute the instructional program and accepted procedures. It seems quite possible that our structured systems and rigid role requirements actually have created tendencies toward cognitive closure and rigidity.

Harvey⁹ has impressive evidence (in view of the overlap of his work with that which has been done on dogmatism and tendencies toward closure) of the prevalence of structured belief systems among educators and how they influence teacher functioning and the kinds of pressures placed upon

⁹ O. J. Harvey, "Belief Systems and Education: Some Implications for Change," Paper prepared with support of National Institute of Mental Health (Research Development Award 5-K2-MH-28,117), University of Colorado, Boulder, Colorado, 1969.

Harvey's work is on four belief systems which he places on a dimension of concreteness to abstractness, the extremes of which might be compatible with the arbitrarily dichotomized extremes explored in this paper. The cognitive style of highly concrete individuals includes a highly selective filtering of new information, tendency toward extreme judgments, simplistic thinking (particularly when emotionally involved), reliance upon authority as a guide, intolerance of ambiguity, unknowing inconsistency among beliefs, inability to change set, insensitivity to subtle cues, inability to act "as if" or make believe, certainty of own opinions, need for structure and high use of unexplained rules, quick formation and generalization of impressions of others from incomplete information, and low flexibility and encouragement of originality. Abstract individuals are the opposite on these characteristics.

Concreteness is based largely on conditioning, and abstractness develops out of induction and insight resulting from exploration and direct experience; child-rearing antecedents are crucial in developing these characteristics. These systems differ in patterning and in what is central in their organization. Harvey has chosen to work in the area of changing beliefs, even though he stresses the importance of teacher selection, training, and retraining as a means of enhancing abstractness in students. He is finding that representatives of his four belief systems are influenced by different factors, e.g., highly concrete individuals tend to be more authority and status-oriented.

students. One alarming statistic coming from his work is that the large majority of school superintendents, principals, and teachers are found to be toward the concrete end of his concrete-abstract dimension. Only about 7 percent of the educators with whom he has worked have belief systems that are open and flexible (abstract). Another disheartening finding is that of the several hundred active teachers he has studied he has not found a representative of that belief system which is anti-establishment in orientation. He feels this probably stems from a combination of events such as trainee selection, teacher training, hiring, and attrition due to administrative constraints. To produce open-flexible students, Harvey feels it is first necessary to have "abstract" teachers. According to his data, the probability of increasing the percentage of open-type teachers in the immediate future is low.

Costa¹⁰ describes a pattern of educator response to training in inquiry behaviors that also gives some cause for concern, even though it does indicate a direction for action toward increasing the ratio of openness to structure. As a way of teaching, inquiry involves establishing freedom, a responsive environment, focus, and a process orientation in order that learners develop autonomous use of certain thinking processes for deriving meanings. Although some teachers show great affinity with and inclination for this approach, some experience difficulty and dissonance in attempting to incorporate inquiry skills into their teaching, others show mild, passive interest, and still others respond with open hostility, defensiveness, and rejection of the behaviors. Although his study does not cover all research of this nature, he reports numerous attempts to vary the conditions of training: administrative support, strategies for disseminating inquiry behaviors, length of training time, leadership, commitment, and setting. These training efforts also show that the same response spread persists from adoption (enthusiastic, passive, dissonant) to rejection (passive or enthusiastic). Those who become successful teachers of inquiry apparently already possess the attitudinal characteristics which allow them to acquire inquiry behaviors. It appears therefore, that unless trainees are carefully screened for this propensity, considerable training time, money, and effort could produce low yield or be wasted.

¹⁰ Arthur L. Costa, "An Investigation of Some Relationships Between Teacher Attitudes and In-Service in Inquiry." Doctoral dissertation, University of California, 1969. He based his definition of inquiry behaviors on the earlier work of J. Richard Suchman, who emphasizes a student-teacher dialogue as a means of data gathering and theory testing.

For in-service purposes it may be simpler just to allow highly structured individuals to continue in the manner most comfortable for them and accept the fact that at the present there is likely to be a considerable percentage of educators who are not able to change very much under ordinary training procedures. The extent to which resistance to innovation and system modification has its roots within human characteristics such as have been described is an important area for investigation.

Compatible Environment

One of the most important environmental supports for Alternative S practices would be attitudes and values consistent with the discipline, order, preplanning, and regimentation of the system. Consonance with the surrounding milieu would provide foundational structure for the authority role of the institution, its hierarchical management policies, and respect for school personnel who conduct the system in this manner. It would eliminate controversy about the priority valuation of cognitive development over other domains of human functioning. Both people in the community and educators would agree on academic achievement as the key criterion of educational success. As a result of this common value orientation there would be recognition and reinforcement of both formal rites of passage and rewards for system fit.

Common images of appropriate role behavior in the school setting, e.g., teachers and pupils, would create common expectancies of what is desirable and what constitutes deviations from these images. As a result, interpersonal transactions would be more harmonious. Teachers would be expected to instruct, manage, and judge and pupils to cooperate and conform, with both role images supporting the notion that youngsters are "achievement motivated" when they conform to adult expectations or requirements and take on predominant cultural values. Other roles would fit overall system functioning, e.g., administrators, coordinators, supervisors, counselors, psychological testers, and remedial specialists would handle the directing, organizing, advising, assisting, diagnosing, and evaluating necessary for maintenance of the structure and existing expectations.

Uniform valuations and images also would tend to create the financial support for providing and maintaining physical plants and resources consistent with a model of education designed to impart knowledge and skills.

Mutual concern for efficiency in community and schools would increase the likelihood of obtaining the latest materials and technology to accomplish this end.

A status quo social and economic orientation would tend to make school relevant to the outside world. For example, having employment needs to match vocational preparation given in the schools would lend continuity and security to departure from the institution. Having a hierarchy of occupations from blue collar to highly technical-professional would match the range of abilities and backgrounds passing through the schools. If all individuals were content with their lot, regardless of their success both within and outside of the system, education would seem relevant to the broader society.

This description no longer fits the environment in which most schools must operate, however. It is not the world currently in transition. Rapid changes in attitudes and values outside the institution cause school and environment to be radically out of step with one another. Conceptions of "appropriate" behavior are in fluxion and at variance with conventional role requirements. The authority of both school and society is being challenged and respect increasingly must be earned according to criteria of relevance, confrontation, or active participation within both the educational arena and the broader society. Cognition is being forced to make way for affect, conation, body awareness, and personal commitment and expression. Traditional rewards hold little appeal for many. The affluent young, in particular, openly reject the materialist-economic orientation predominant in the past. Desire for something different and better is widespread today, among many adults as well as the young. The power of this discontent and the upsurge of new values¹¹ create a situation in which an Alternative S educational institution must change if it is to be a viable, effective social force.

¹¹ Willis W. Harman, op. cit., describes these emerging forces and strands of change which project an image of man as capable of transcending himself toward higher levels of consciousness, as well as the metaphysical premises underlying them, and draws implications from this analysis for directions in education.

III ALTERNATIVE O--OPENNESS

Alternative O, openness, stands for ongoingness, and opportune moments for growth. This is the alive and dynamic world of movement and flow, a world tuned to the internal, subjective, immediate, and felt. Meaning is personal and comes out of present experiencing and conceptualizing. The future is constantly in the process of becoming; changingness is ever present. Continuity lies in awareness of consistency in direction, manner of unfolding, or in growing appreciations, deepening understandings, and strengthening of self. Uniqueness, expansion of human limits from within, and coping power are basic concerns. Adults are models of individuality, creative adaptability, and self-transcendence who relate to and grow along with the young. Together they test and push outward the boundaries of sensing, feeling, thinking, doing, and expressing. Joint endeavors broaden the power and internal control that is felt within each person. This, in brief, is the feel of Alternative O.

Basic Assumptions, Values, and Latent Dangers

The implicit assumptions of this belief system come together to form the configuration shown in Table II. Language and categories used to describe its basic concerns present a view of the world sharply in contrast with that of Alternative S. Its form is spherical, overlapping and unified--expanding, and returning--and permeable. Since it represents a process and social system which continuously expands and feeds back upon itself, there are no rigid organizational structures, as in the traditional conception. Just how such a model could be managed so as to retain its dynamic quality would be a key problem in making this hypothetical design a reality.

Given a choice, increasingly greater numbers of our populace would tend to embrace this set of assumptions and the world view it offers. It seems casual and free-unhampered by the restrictions and proddings of a tightly structured system--in some respects like the youth of today. But examination of Alternative O's underlying assumptions reveals that it, too, has latent dangers as well as values.

It is possible only to conjecture about dangers that might be latent in such a system, since it is a hypothetical model created to contrast sharply with that which we have known in the past. As a total system it

ASSUMPTIONS, VALUES,

VALUES	ASSUMPTIONS	LATENT DANGERS
<p>SELF . . .</p> <ul style="list-style-type: none"> - Unity - Uniqueness - Internal strength 	<p>SELF . . .</p> <ul style="list-style-type: none"> - Is at the center - A unifying force in personality - Known in present awareness - Unique - As result of sensing, feeling, and imaging transactions - Naturally linked to physical origins and universe - Extended through creative products 	<p>SELF . . .</p> <ul style="list-style-type: none"> - Preoccupation with self; less interest in others - Decreased motivation to become persons others want and expect
<p>LIVING . . .</p> <ul style="list-style-type: none"> - Active, selecting-responding process - Wholeness - Individual differences = Joy 	<p>LIVING . . .</p> <ul style="list-style-type: none"> - Is transacting with the environment - Dynamic and emerging - Growing, transcending, and creating - In the present - Holistically - At different levels - In multisensory modes - Based on idiosyncratic perceptions and responses - According to own growth rhythm - Naturally playful 	<p>LIVING . . .</p> <ul style="list-style-type: none"> - Limitations of passive-receiving paradigm - Inappropriateness of static, single-criteria assessment - Dysfunctionality of structured system and rigid scheduling - Inappropriateness of molecular approach - Inattention to symbolic-abstract - Dysfunctionality of standardization - Questions attitude that "school is work"
<p>CHANGING . . .</p> <ul style="list-style-type: none"> - Natural growth - Internal motivation - Personal valuation - Responsible action - Internal evaluation 	<p>CHANGING . . .</p> <ul style="list-style-type: none"> - Is natural - Results from actively transacting - Moving in a direction - By intending - Through visions created by choice and values tested in experience - From exertion of right to act (or not to act) - By assuming personal responsibility - Is facilitated by subjective judgment 	<p>CHANGING . . .</p> <ul style="list-style-type: none"> - Slow or spasmodic - Inaction from personal binds or barren, nonstimulating or restrictive environments - Nonsupport of cultural norms - Discrepancy with societal values
<p>FREEING-EXPRESSING . . .</p> <ul style="list-style-type: none"> - Process - Horizontal perspective on full human functioning - Internal, intrinsic satisfaction 	<p>FREEING-EXPRESSING . . .</p> <ul style="list-style-type: none"> - A process phenomenon - Through physical movement, in space, by personal symbol, fantasy, imagination, or any mode of human functioning - Subjectively experienced 	<p>FREEING-EXPRESSING . . .</p> <ul style="list-style-type: none"> - Less attention to achievement of finalized products and externally imposed ends - Nonhierarchical perspective undermines abstract-symbolic supremacy - Disruption of external, common standards
<p>UNIFYING-INTEGRATING EXPERIENCES . . .</p> <ul style="list-style-type: none"> - Defining and solving problems - Creative growth - Present and process orientation - Internal locus of evaluation 	<p>UNIFYING-INTEGRATING EXPERIENCES . . .</p> <ul style="list-style-type: none"> - Reordering, resolving, assimilating - Intuitive sensing of patterns, relationships, and possibilities - Occurs in the present - Internally experienced linking of idea, affect, image, attitude, bodily responses - Intrinsically satisfying and joyful - Subjectively valid 	<p>UNIFYING-INTEGRATING EXPERIENCES . . .</p> <ul style="list-style-type: none"> - Less attention to retention and acquisition of structured bodies of knowledge - Insufficient attention to preparation for the future - Difficulty of assessment from purely objective perspective - Undermining common norms and externally applied standards - Inadequate tests - Undermining of Protestant work ethic

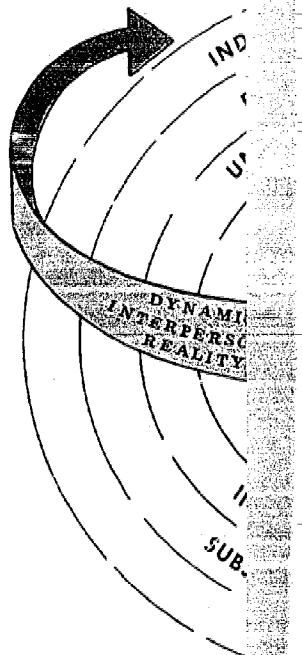
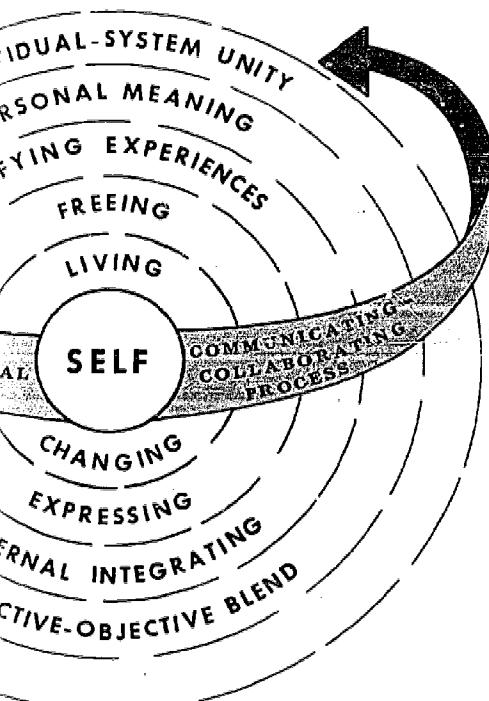


TABLE II
AND LATENT DANGERS OF ALTERNATIVE 0



VALUES	ASSUMPTIONS	LATENT DANGERS
<p>PERSONAL MEANING . . .</p> <ul style="list-style-type: none"> - Personal relevance - Reality - Individual style and cognition 	<p>PERSONAL MEANING . . .</p> <ul style="list-style-type: none"> - From blending of subjective-objective worlds - Can be tacit and in process of becoming - Can come from conversion of own reality and inner truth into symbols - Is an interpretation of the world - Linked to language and cognitive patterning - Individually known and private - Partially sharable when consciously, objectively conceptualized 	<p>PERSONAL MEANING . . .</p> <ul style="list-style-type: none"> - Cultural relevance unattended - Devaluing of common, public knowledge and cultural heritage - Limited common verbal currency
<p>INDIVIDUALS</p> <ul style="list-style-type: none"> - Individual worth - Adaptability - Flexibility 	<p>INDIVIDUALS . . .</p> <ul style="list-style-type: none"> - Are the highest authority - Create and constitute systems - Provide input to systems that continually modify them - Consciously adapt and fit the environment to themselves - Vary time for completion, interest, and inspiration - Move by chance and need within the environment 	<p>INDIVIDUALS . . .</p> <ul style="list-style-type: none"> - Weakening of institutional structure and control - Preoccupation with small group goals - Disorganization and bewilderment from too rapid a change rate - Instability - Discontinuity
<p>INTERPERSONAL REALITY . . .</p> <ul style="list-style-type: none"> - Basic social needs - Social reality - Genuine human encounter - Power of personal identification 	<p>INTERPERSONAL REALITY . . .</p> <ul style="list-style-type: none"> - Social nature stemming from nurturant relationships in early life - Simultaneously separate from and related to others - Exists and behaves in a human context - Authenticity basic to relating - Educative power lies in people as models of life styles 	<p>INTERPERSONAL REALITY . . .</p> <ul style="list-style-type: none"> - Complexity of looking at behavior in social context - Intangible variables difficult to assess - Too little importance to instruction, method, and systematic presentation - Provincial perspective of small group
<p>COLLABORATING-COMMUNICATING . . .</p> <ul style="list-style-type: none"> - Individual <i>within</i> group - Democratic participation - Individual <i>and</i> group problems - Transactional perspective - Nonverbal communication - Cultural awareness 	<p>COLLABORATING-COMMUNICATING . . .</p> <ul style="list-style-type: none"> - From a feeling of belonging - A sense of community - With recognition that individual problems are group problems - Group problems stem from functioning and organizing of individuals within a system for which they are responsible - Includes multiple message modes - Simultaneous and anticipatory transacting - Covert transmissions unknown to communicators and ambiguously perceived by receivers - Is culture bound 	<p>COLLABORATING-COMMUNICATING . . .</p> <ul style="list-style-type: none"> - Complexity of looking simultaneously at individuals in situational context - No scientific model or techniques for assessment

is untried, although certain components may seem familiar. One potential danger within Alternative O is that of too much individualism and a breakdown of over-all cultural cohesion and continuity. Lack of systematic emphasis upon a common core of behaviors, shared knowledge, and basic skills could lead to nonsupport of cultural norms and traditions. Pre-occupation with self and development of personal, idiosyncratic meanings might be accompanied by decreased motivation to take on the expectations of others. Perhaps too provincial a perspective would develop. There are numerous unknowns. Would man's social nature and transaction in the interpersonal reality of a social system develop sufficient sense of responsibility, commitment, and involvement beyond self? To what extent might cohesion be achieved through relatedness and investment of self in others? How far would this extend beyond the immediate group and to what extent would individuals act to preserve and protect the culture? What would happen to authority in this system? New conflicts surely would arise. If such a system were tried, questions such as these would be of great concern.

Another serious risk is that, without explicit conservative pressures, rapid change and mobility could intensify instability and disequilibrium. Lack of systematic planning and external direction might result in marked discontinuity and wasted time in critical developmental years. An ethos of work and productivity has fed our economy in the past, i.e., success and salvation come through products and accomplishment. Such achievement motivation has been supported by the traditional system and further reinforced by a research model that measures attainment of external standards. Increasingly, process is being valued--spontaneous joy in the moment, a sense of aliveness simply from being, doing, and experiencing the "here and now." To what extent would Alternative O alter attitudes toward productive work? Would individuals only seek "instant joy" and take no pride in traditional products? If true, this might have serious economic consequences, if O-type systems predominated. Or is it possible that a different conception of motivation would result, one that blends work and joy through intrinsic satisfaction in the process of creating products?

In many ways it poses both threat and solution for the existing structure. It offers, for example, the potential of strengthening inner resources and motivation, expanding human functioning into dimensions currently ignored, increasing the meaning and richness people find in their lives, meeting their interpersonal needs, and developing coping power and adaptability. All of these attributes will be vitally

important in the future.¹ For every risk there is a possible gain. But to risk sustained implementation of such a belief system requires faith--firm conviction about its underlying assumptions. The most basic beliefs necessary to this faith concern the nature of man and his potential.

Alternative O in Operation

Life in this educational environment would be quite different than what most people have experienced. Education, according to this set of beliefs, is essentially living, growing, and expanding personal horizons. It rests solidly upon assumptions that (1) there is a growth force within humans, (2) man is by nature a dynamic, stimulus-seeking organism functioning simultaneously in multiple dimensions,² and (3) he is capable of

¹ Donald N. Michael, *op. cit.*, feels leaders of tomorrow should possess the following skills: long-range perspective; thinking of many variables related as probabilities and as cause and effect of each other; logic in working through ethical dilemmas; deep familiarity with history of ideas and comparative ethics; efficient, imaginative, and perceptive coping with information overload; empathy, compassion, and trust; nonexploitiveness and nonmanipulativeness; self-growth and self-esteem; tolerance of ambiguity; acknowledgement of error; patience and suffering. Alvin Toffler writes of the need to manage change in the future to prevent adaptive breakdown from "future shock," e.g., through creation of personal stability zones, evaluating inner environments, self-pacing, modulating flow of sensory, cognitive, and decisional stimulation, perceiving people in process of becoming, and experiencing aspects of the future in advance (*Two issues of Playboy*, February and March, 1970). Inner resources and attributes clearly will be increasingly vital to survival.

² Aldous Huxley describes the multiplicity of worlds in which humans live, i.e., electro-chemical, first-order subjective experiences, and language. He considers some ways in which the nonverbal side of the organism might be trained to actualize more human potentialities, rather than leaving them latent ("Human Potentialities" in Richard E. Farson (Ed.) *Science and Human Affairs*, Palo Alto, California, Science & Behavior Books, 1965).

Ludwig Von Bertalanffy describes the organism as a spontaneously active system, which is in fundamental contrast to the conventional stimulus-response scheme which assumes that the organism is an essentially reactive system answering to external stimuli, a model consonant with the zeitgeist of a highly mechanized society ("General Systems Theory-A

self-direction--of defining and solving his own problems. A core belief is that each individual is a unique self. As with the other model, guiding principles and practices based upon the entire set of Alternative O assumptions appear in the Appendix (B). From these specific descriptors it is possible to capture something of the nature and quality of participation in such a system.

Freedom is foremost--to move and explore, to be as one is, to think, fancy, feel, respond, or select from the environment whatever is of personal import at any given moment. Wholeness--the total person³--is given priority. Emotive, artistic, or bodily responses supplement or supplant verbal interaction. Translation from one mode of communicating to another is the usual approach to extending insights and appreciations. Solitude and time for reflection and internal integration is common, as is opportunity to create. Comprehension and retention emerge naturally from each individual's conceptualizations, constructions, or artistic products. Concern is evidenced for the tacit and not fully defined, the vague unrest that precedes problem definition, and the hunches and curiosities that move individuals to seek, search, and complete.⁴ There is not an

Critical Review," in W. Buckley (Ed.), Modern Systems Research for the Behavioral Scientist, Chicago, Aldine Publishing Co., 1968, p. 25.) In actuality, man can be both active and reactive, but from biology comes a conception of great importance to the future. Clifford Grobstein, in The Strategy of Life, San Francisco, W. H. Freeman & Co., 1964, describes man as the possessor of a new degree of freedom beyond that of a mere mechanism to extend the biosphere--stemming from awareness of the future and capacity for choice. He writes, "Between the two--for the first time on earth and possibly in the universe--a component of the biomass can consider the direction in which to turn" (p. 112). Why education has clung to a paradigm based only on man's ability to respond to external stimuli is an issue of growing importance.

³ Maslow, op. cit., p. 11.

⁴ One of the points John Dewey emphasized in his extensive writing on scientific method and reflective thinking was the need for incubation as one phase of a rhythmic process to be modeled after the artist. During this time when the unconscious is relied upon, material rearranges itself, facts and principles fall into place, the confused becomes bright and clear, the mixed up becomes orderly, and inventions, solutions, decisions, and plans are hatched. A prior step in this problem-solving process is conscious deliberation and steeping in relevant materials, but the synthesis and personal meaning occurs within the individual (How We Think, Boston, Heath, 1933).

absence of structure in this system; individuals continuously structure for themselves. Assuming responsibility for self is a given; to act or not to act is a right. Voluntary and timely growth, not compulsory treatment, is the basis of action.

Ambiguity and dissonance are seen as challenge for confrontation and coping, for transacting with the environment. Engagement is entry into potential growth. Play is an end in itself, as well as an opportunity for joyous sharing and sensing of self. Subjective experiencing and conceptualizing of the process of living⁵ is the essence of this system. Sharing and acceptance of personal realities tested in experience is a means of developing both values and a vital sense of certainty within.

Recognition of self in others opens the door to empathy and compassion. Joint problem-solving leads to a sense of community and mutual concern. Power lies in humans--in images of self and in authentic, vital models of effective, satisfying styles of living. Awareness and sensitivity to self and others is necessary for communication and genuine human encounter.

The language of this world includes many processes, much of the individual, and recognition of both intra- and interpersonal environments, e.g., transacting, freeing and expressing, emerging and transcending, unifying and integrating, multisensory and multilevel functioning, idiosyncratic perceptions and Gestalten,⁶ individuality and uniqueness, choice, spontaneity, personal meaning and personal reality, identification and inspiration, relating, participating, and collaborating. Using tools such as these concepts provide--rather than relying upon traditional categories--would allow policy-makers to create quite different educational environments for the young. They could not look just once through their window to the world, but would need continuous viewing of the dynamic scene emerging before them. A tightly structured organizational system could not provide the engagement and spontaneity required for continuous

⁵ James F. T. Bugental, in noting constraints upon writing about personality and psychotherapy, describes process rather neatly when he says, "the very processes of thinking and writing are part of my inquiry and discovery, so that I am always moving beyond what it is I have written. Thus any statement is in some degree out-of-date as I make it" (p. 3) (The Search for Authenticity, San Francisco, Holt, Rinehart and Winston, Inc., 1965).

⁶ Wolfgang Kohler, The Task of Gestalt Psychology, Princeton University Press, 1969.

growth,⁷ but this does not mean an absence of structure. Structuring occurs within the individual and the groups to which he relates.

Compatible Personality

Alternative O calls for an open, flexible, and highly sensitive person--permeable to changing situational contexts and human motivation--who has maximum faith in the potential of others to be self-directive, someone who can allow and trust the young to choose and cope, both individually and as a group, within a fluid, dynamic world. Harvey's highly "abstract" personality seems most suited to these requirements. Certainly, a "concrete," rule-oriented individual would feel quite ill at ease in such an environment; in fact, the atmosphere likely would not long survive an authoritarian individual with a high need for structure.

"Abstract" educators would demonstrate a cognitive style⁸ appropriate for the self-directed problem and interest-centered approach of this model. They are open to unfamiliar data and novel stimuli and possess cognitive flexibility--are able to adjust attitudinal set in the face of changing problems. They are tolerant of uncertainty and ambiguity⁹ and are able to withhold judgment, which tends to be little influenced by emotionality. They would be less susceptible to influence by what is obtrusive and more sensitive to subtle cues. Such characteristics facilitate problem penetration and definition. The ability to make believe allows them to get inside another's role. They likely could share frames of reference with

⁷ Bugental, op. cit., feels the uniqueness of encounter between therapist and patient is such that "it cannot be pre-prescribed, pre-dictated by any authority, any system, or any formalized plan" (p. 6). Relatedness dimensions in the educative process may be just as hampered by specification.

⁸ Most of these cognitive characteristics emerge from Harvey's research, op. cit. Sharing frames of reference, confrontation of the unknown, ability to synthesize and produce original responses are logical inferences from other work subsumed under the label of "creativity."

⁹ Goldhamer, K. and G. L. Becker found ability to adapt to ambiguous situations a distinguishing characteristic of "beacon" principals, who consider a fluid situation an asset because it allows them freely to adapt the educational program to immediate needs of pupils ("What Makes a Good Elementary School Principal?" American Education, April 1970, pp. 11-13).

others and would tend to confront (not turn away from) the unknown, unpredictable, and previously unencountered. Open, flexible minds could likely emerge from induction and synthesis with intuitive integrations and unusual relationships. Most important for the young, "abstract" adults would encourage originality and individual responsibility.

Confidence and belief in another's potential is necessary to the giving of responsibility. The ability to trust others--to give them freedom to initiate and act--rests upon trust in self.¹⁰ An educator who really knows and appreciates in his own life what it means to be self-directive--to choose his own way--realizes what it can mean to others. Belief in human potential--and ability to communicate this confidence--may be one of the most critical variables in the educative process.¹¹ In the offering and accepting of responsibility there is a transmission of trust, which surely enhances an individual's feeling of self-worth. Belief in human potential and self-esteem, then, become partners in sparking the hope and anticipation so basic to human motivation.¹²

¹⁰ O. J. Harvey, "Teachers Beliefs, Classroom Atmosphere, and Student Behavior." Amer. Educ. Res. Journal, 5, 2, March 1968, pp. 151-166. A heavy element of such belief and trust may be involved in the four behavioral items comprising the resourcefulness cluster Harvey found to be characteristic of teachers with abstract belief systems: utilization of physical resources (.77), diversity of simultaneous activities (.77), encouragement of creativity (.72), and ingenuity in improvising teaching and play materials (.71). They also are low on dictatorianness, e.g., they have little need for structure, tend not to determine classroom procedures, and encourage free expression of feelings. Many activities being carried on at once means freedom has been given for self-direction. Encouragement of uniqueness implies offering of transmission of belief in ability to be productive and original. Teachers who trust themselves would feel free to utilize a wide range of resources and improvise materials in their own way, which, through modeling, would further encourage ingenuity and self-direction in children (pp. 158-159).

¹¹ Goldhammer, op. cit., also found that in the best schools one characteristic of outstanding administrators was their faith in children and their potential.

¹² Ezra Stotland presents a schema for making "hope" more comfortable in scientific psychology as an element of behavior that can be defined, measured, and applied in social and clinical contexts (The Psychology of Hope, San Francisco, Jossey-Bass, Inc., 1969).

Emotional awareness and sensitivity is essential for Alternative O. When individuals are in touch with and accept their own internal states, they tend to feel more secure, so this, too, likely interacts with trust and becomes a precursor to opportunities youngsters have to assume responsibility for themselves. "Abstract" educators are low on a punitiveness cluster,¹³ but "concrete" educators, by contrast, are high on both this and the dictatorialness clusters. Warmth and acceptance likely would be necessary but not sufficient ingredients for this system to function in a fully effective manner.¹⁴

Three core personality dimensions should differentiate individuals whose personalities and life-styles would be compatible with either highly structured or open environments, as follows:

Cognitive style

A	Closed--structured	← - - - - -	→ Open--flexible	A
L				L
T				T
E				E
R	<u>Emotional Awareness</u> <u>and sensitivity</u>			R
N				N
A	Unaware--out of touch		Aware--in touch with	A
T	with self and others	← - - - - -	self and others	T
I				I
V				V
E	<u>Trust in self</u>			E
S	Limited self-trust	← - - - - -	Self-trust and sense of competence	O

¹³ Harvey, op. cit. The punitiveness cluster is based on items of warmth toward children (-.86), perceptiveness of children's needs and wishes (-.85), and punitiveness (.77).

¹⁴ What is meant is that mere physical show of warmth or verbal expressions of "That's nice, Johnny" are not enough, that the truly powerful process variables involve trust in self and others, self-awareness, and other intangibles. Carl R. Rogers describes qualities which facilitate learning and interpersonal relationships in Freedom to Learn, Columbus, Ohio, Charles E. Merrill Publishing Company, 1969. In this he describes some of the conditions in which such variables can thrive.

These three dimensions are interwoven with one another and compose a personality syndrome that has considerable influence upon how both adults and their charges interact in educational settings. Such tendencies are hypothesized as critical variables in determining the relative smoothness with which adults function and the extent to which capacities for integrated, whole functioning are restricted and bound or free and fluid. Powerful intangibles surround these particular characteristics when they are involved in human transacting. A tendency toward either extreme on any one of them would likely be associated with similar tendencies on the other two as a consequence of common origins in child-rearing, e.g., in the early parental handling of sex, aggression, dependency, expression or suppression of emotion, freedom given for exploration and independence, the extent and consistency of rewards and punishments, intimacy or distance in relationships, and the opportunity to develop internalized values based upon personal experience (as contrasted with conformity to others' values).¹⁵

Behavioral patterning along these dimensions not only enter into the educational scene, but likely make themselves felt in the broader culture--in mental health or pathology, crime and violence, alienation or affiliation, dogmatism or creativity, inner- or outer-directedness, and active participation or apathy. Tendencies toward one extreme or the other on these dimensions influence how educators modulate the environment and interact with others and determines the kinds of models they become. The consequences are serious for the broader culture. In a general sense, they combine to produce individuals who can (1) swing with societal or environmental forces and value shifts or seek to stop them, and (2) cope with emerging constraints and problems or cling to what has worked in the past. They feed into openness to change or resistance to it, and this orientation toward change is a major distinguishing characteristic between the two alternative approaches to education.

¹⁵ Harvey, op. cit., concluded that one of the theoretically valid determinants of abstract belief systems is freedom an individual has as a child to explore the world of values and to evolve and internalize rules on the basis of direct experience and pragmatic outcomes (p. 164). This is consistent with research on antecedents to creative performance in adult life.

Compatible Context

The centrality of self in this theory would bring primary emphasis upon establishing an atmosphere secure and safe enough for self-exploration and confident projection of self into the environment by means of communication and creative products. Pluralistic perspective which genuinely values and accepts human variation--and appreciates its richness and complementarity--would encourage development of individuality. The absence of strict role expectations would allow individuals to come together as people, not performers--as individual selves, not as automatons.

A workshop environment--perhaps a self-education lab--in which there is ample freedom to transact at will and minimal external control and evaluation would be an appropriate ecological setting for this approach and would be likely to enhance its implementation. There would be no physical bounds to the learning environment; they could extend as far as the minds, imaginations, and motivations for growth of those who participate in the process would allow. Ends and means--and criteria for judging them--would emerge and remain under internal control. Freedom and responsibility would, of necessity, cohabit this world.

Keeping in touch with changing societal needs would provide continuous stimulation for growth and self-transcendence, but a mutual and positive valuation of change by both educators and community would be basic to survival of this approach. All participants would need both flexible acceptance of the unexpected and ability to utilize new data. A process orientation and collaborative network for decision-making would allow for the adaptability and modification that would be normal for this approach. Management would be primarily concerned with obstacle removal and facilitation of task involvement and intrinsic satisfaction from the process of living. Collaboration would be voluntary, not compulsory. Plans would be shared, not imposed. Coordination would be facilitated by participants assuming responsibilities rather than by assigning or delegating duties. Leaders would emerge naturally in response to need. They would be respected, not resisted and resented.

Admittedly, this has a utopian ring to it. Implicit in its operation on any large scale are assumptions that survival and security needs have been met sufficiently to allow people to function in these ways. Economic, social, and political institutions also would have to be sufficiently open, responsive, and healthy to provide the necessary means and environmental support for satisfying the more minimal needs of living. Individuals would have to be considered as ends in themselves, not merely as instrumental to society, government, or vested interest groups.

But again, this discussion at a general level is deliberately ignoring human variation in many domains. The extent to which such a model would be operable and what supports it would need are open questions.

Clearly, many people are clamoring for some such context and mode of living. Whether these urgings will be smothered by extremism, repression, frustration, and bitterness lies in scenes and acts yet to come. Policy decisions to provide opportunity for such healthy urgings within man to develop and be realized in action are sorely needed at this time. It seems that opening the system may be its only route toward functionality. Certainly, adaptability will become even more urgent in the future. Change is a constant reality of living faced by both individuals and institutions, and its acceleration is one of the most critical problems facing technological man. In the long run, Alternative O might prove more practical than idyllic. Survival may require greater openness than man has known throughout his history.

IV APPLICATION OF DIVERSE MODELS TO CURRENT EDUCATIONAL ISSUES

The preceding descriptions of diverse value and belief systems illustrative of "structure" and "openness" demonstrate that they lead to dissimilar educational preoccupations, procedures, and learner experiences and present different risks and problems. Yet there is a tendency, at least among those in control of the schools, to approach and discuss educational issues as if all people view education as they do and that their beliefs should be common to all. To underscore emphatically the extent to which underlying premises influence what is seen and how people define and approach problems within their vision, this section compares postures likely to be assumed by advocates of Alternative S and Alternative O on a range of current issues.

First, the most fundamental and over-riding difference between the two extremes lies in their definitions of education. To adherents of Alternative S, education is schooling or instruction in basic knowledge and skills necessary to fit our present culture. Alternative O advocates see it as human experiencing and conceptualizing, as living, growing, and expanding personal meanings. This definition involves what increasing numbers of people feel could and should be; it is yet to be realized. When different people use the term "education," they may, in fact, have no common conception of either the process or desired outcomes. How, then, could they agree upon what is "quality" or "excellence" in education and what constitutes an "improvement" in educational practices? Curriculum to one means the scope and sequence of knowledge and skills to be taught, while to the other it means all the learners' experiences while in school--social transactions as well as encounters with physical resources and random happenings as well as planned events.

Relevance

"Relevance" has often been demanded of present-day education, but with little clarification of what is meant by it. Briefly, under Alternative S education would be considered relevant if it . . .

Diagnosed learners' levels of functioning and adapted content and materials to their needs, i.e., either simplified or enriched

Increased academic achievement or current measurements of intelligence (results which are valued by society)

Were related to learner interest or desire

Were related to subcultural background and familiar experiences of the learner

Utilized the language of learners and started with their meanings

Provided skills needed for successful competition

Prepared learners for jobs suited to ability and background

Were related to society's manpower needs.

Emphasis is placed upon cultural fit, upon what is relevant and necessary to perpetuate the culture and develop citizens who can perform adequately as components of society. By starting with people where they are, they can be developed toward a common image of economic participation and effectiveness.

In contrast, education would be relevant under Alternative O if it . . .

Evoked personal felt meanings and awareness

Stimulated unique personal perceptions and expressions

Were intrinsically satisfying or joyful

Stimulated curiosity or creativity

Challenged or created cognitive-affective-attitudinal dissonance

Inspired, or expanded horizons

Created new images and intentions

Provoked natural, spontaneous action or responsibility

Unified, integrated, and strengthened self

Freed, involved or activated total response

Contributed synergically to both individuals and immediate group

Blended subjective and objective realities

Reflected larger societal conflicts in immediate group problems.

Here, there is concern for personal relevance--with a process of meaningful, provocative transacting with the environment and the linking of objective and subjective worlds. Growth is idiosyncratic, occurs within the individual, and is influenced by a social reality. Since there is no guarantee of cultural fit, socialization risks exist.

Objectives and Developmental Opportunities

There are marked differences between the two models in priorities, attitudinal sets, and breadth and quality of growth opportunities, as illustrated in the following summary clusters of developmental objectives and expectancies for student behavior. Cognitive development and conformity to student role performance assume priority in Alternative S; Alternative O gives priority to holistic, creative functioning that challenges both self and environment.

Alternative S

- (1) Intellectual competence; co-operation with both peers and adults; nonassertion, passiveness, and submission to external requirements
- (2) Responsiveness and receptiveness: focusing, memory, repetition and retention of what is presented; objective, analytical, deductive, rational functioning

Alternative O

- (1) Awareness and acceptance of self; awareness and acceptance of others; flexible balance of dominance-submission
- (2) Expressiveness: creative, imaginative, intuitive, integrative, or synthesizing functioning

(3) Problems identified and structured by teacher or materials to reach uniform goals; question-answering; reaching solutions known in advance	(3) Problem-identification and definition by students, goal-setting; carrying through to problem completion
(4) Assertion only when special responsibility is delegated or in doing what is expected; dependence on teacher, who assumes responsibility for children's learning; compliance with rules and regulations	(4) Self-assertion; independence, and responsibility; establishing own standards and procedures
(5) Attitudinal set to learn what is presented; listening, attending, and concentration upon structured, well-organized, and sequenced presentation; simplification of cognitive learning and elimination of extraneous data	(5) Conceptual organization open to new experience; seeking; flexibility, cognitive complexity

To attain the preceding objectives, proponents of the two models would advocate diverse environmental characteristics, as follows:

<u>Alternative S</u>	<u>Alternative O</u>
<ul style="list-style-type: none"> (1) Preoccupation with external, objective, prestructured content; expression of feeling carefully controlled (2) Opportunity to compete with others in academic world, gain a sense of intellectual competence, master subject-matter; rewards for successful completion of school requirements 	<ul style="list-style-type: none"> (1) Freedom for self-expression and self-disclosures; an atmosphere of psychological safety (2) Opportunity to test self in experience and gain a sense of competence and control over one's life and environment

(3) Motivation and rewards for acquiring known information and principles; learning in relatively standardized ways; accepting commonly held views and values

(3) Stimulation and/or support for reaching into the unknown, integrating data in unique ways, and diverging from commonly accepted views and values

Preoccupations and procedures stemming from different basic assumptions do have diverse consequences for curriculum design and human development. Quite different life-styles and value orientations are shaped by the two belief systems; they lead to different kinds of people and qualities of living. There are educators today who would claim all of the Alternative O clusters as desirable objectives (ends). Others would consider them irrelevant or only as necessary considerations instrumental to the higher priority and legitimized goal of imparting traditional knowledge and skills (as means). Whether or not they are seen at all or, if seen, are considered as means or ends makes considerable difference in program design, implementation, and description.¹ Whether the full range of objectives is included in program evaluation--fully legitimized as ends of primary concern--is of the utmost importance where diverse educational programs are being compared, as in large-scale social intervention programs like Head Start and Follow Through. The question of accountability becomes highly complex when multiple objectives or behavioral outcomes are involved.

¹ What actually happens in classrooms too often is an unknown. For example, a carefully prestructured and sequenced learning program with considerable group drill might be thusly described, yet a dynamic, humorous, acceptant teacher (or a powerful identification model) can transpose what could be regimentation into a game accompanied by much laughter and joy. Similarly, an autonomous learner program, which could evidence the delight of self-discovery, can be dampened by a teacher in conflict or disturbed by movement and continuous verbal interaction of students. Mere description of a program, e.g., Bereiter-Engelman or English Infant Schools, must be supplemented by knowledge of the human transactions and attitudes actually operative within examples of that program.

Conceptions of Process Variables

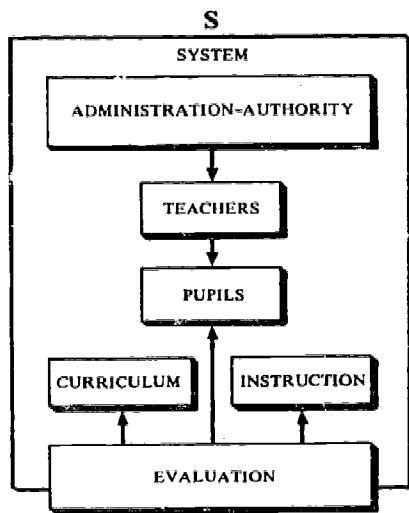
Clearly, allegiance to diverse models would lead to discordant conceptions of what are the most critical variables in the educative process and where attention should be focused. Figure 1 outlines some discrepancies that likely would occur. The most obvious omissions in the Alternative S list are (1) attention to personal characteristics of all educational participants and (2) the quality of interpersonal transactions. By the same token, little attention is given to instructional methods and authoritative knowledge per se in Alternative O.

It naturally follows that criteria for "effective" teaching would vary for the two models. In Alternative S the search would continue for the one best method² or curriculum suitable for the greatest number of students. Teacher effectiveness would continue to be judged by traditional role performance, efficiency in bringing about students' academic attainment, and perhaps the extent to which students like the teacher during this process. An effective educator in Alternative O would be a desirable model for identification who communicates authentically with others and maximizes student involvement, expressiveness, complex open-ended thought processes, and self-motivated change. These cannot be assessed by student performance on academic or achievement tests; by such traditional criteria, the models actually are noncomparable.

Results in education have not equaled expenditures of either human effort or money. Program evaluations repeatedly have brought too little return.³ It appears from this analysis that we may not have been looking

² This search for a single method has characterized much of educational research (N. E. Wallen and R. W. Travers, "Analysis and Investigation of Teaching Methods," in N. L. Gage [Ed.] Handbook of Research on Teaching, Chicago, Rand-McNally & Co., 1968, pp. 448-505). It appears there also is a competitive searching for the "best" approach for teaching the so-called "disadvantaged." Subcultural groups differ in value preferences, which often are ignored, and these, along with diverse experiential backgrounds, call for different approaches for different purposes. Few people seem to question priority attention to basic skills for youngsters so categorized. Yet semantic-symbolic functioning may not be the best entry point for creating desired changes.

³ E. A. Suchman, Evaluative Research, New York: Russell Sage Foundation, 1967, and J. M. Stephens, op. cit. Both of these men are emphatic in their criticism of evaluative research and the paucity of findings. D. K. Cohen elaborates upon specific problems of current evaluation



Classroom is place where planned instructional events occur.

Focus is primarily upon what is done to and for prospective learners, i.e., method, materials, grouping arrangements, teacher-pupil ratio, physical resources and facilities.

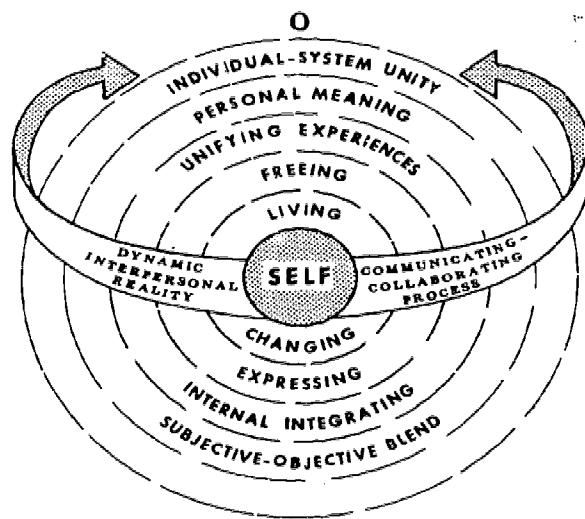
Attention is primarily given to verbal interactions associated with instructional approach, e.g., direct vs indirect, climate in which instruction takes place.

Individual differences receive attention primarily in relation to response of different groups to different methods or approaches.

Educator effectiveness is in terms of success achieved in raising IQ points, teaching basic skills and knowledge, i.e., carrying out formal role.

Assessment is primarily of pupil growth in academic achievement deemed important to broader culture.

Little direct focus upon system as a whole or educators as people.



Classroom is a dynamic social system and a microlab of larger milieu.

Focus is upon transactions that occur within the environment and in relation to those events which impinge from outside of it.

Feedback is continuous and emits from and impinges upon all participants.

Qualities and characteristics of participants are vital ingredients.

Main focus is upon interpersonal communication, especially nonverbal cues related to expectancies and self-fulfilling prophecies; search is directed to subtle variables traditionally not considered part of the field.

Human and physical resources are seen as stimulants for transacting and are examined for potential influence upon learner selectivity and their release and regulating effects.

Critical questions involve optimal stimulation for growth without disrupting security to point of debilitation.

Connections between internal and external realities are important concerns.

FIGURE 1 ALTERNATIVE CONCEPTIONS OF PROCESS VARIABLES

at the most powerful variables because our vision has been restricted to an Alternative S instructional model. The question of unexamined variables--sometimes seen as "unintended effects"--is closely related to program description and range of specified ends and means.⁴ Opening our eyes to an Alternative O perceptual field allows a multitude of human transaction variables to come clearly into focus and opens the door to less tangible but potent elements such as faith in human potential, the power of human choice, and communication of trust. These roots of self-education urgently need behavioral descriptors in order for them to be included as motivational variables.

A serious problem exists in program assessment when diverse models are compared only by traditional criteria which may be quite irrelevant in programs built upon atypical basic assumptions.⁵ High performance on standardized tests, for example, although not undesirable in an Alternative O program, certainly is not of primary concern. Short-range achievement may be quite secondary to growth goals that require experiencing over longer periods of time. The belief that first meeting the social-emotional needs of youngsters will free them for higher-level cognitive functioning cannot be tested in a short-term evaluation. Imagination, self-assertion, and sense of competence cannot be assessed by word-matching test items. The power of body movement or art expression as entries to later verbal symbolic functioning cannot be determined if these dimensions are not considered relevant in curriculum. What meaning is there to evaluation if students are judged by criteria unrelated to program goals or if assessment covers too short a time period?

programs in "Politics and Research: The Evaluation of Large Scale Action Programs in Education," Paper prepared at Center for Educational Policy Research, Graduate School of Education, Harvard University, Cambridge, Massachusetts, October 31, 1969. Also in Rev. of Educ. Res. March 1970.

⁴ Educators may specify as means only selected treatment behaviors and materials, yet be utilizing powerful reinforcers that are not described. It is possible that two programs described as highly at variance with one another may fail or succeed on the basis of the same unspecified human variables and that these could be missed in an evaluation.

⁵ For example, English Infant School and Bank Street College of Education models would be likely candidates for adoption of Type-O objectives, whereas programs geared only to a narrow range of academic skills would not consider these a part of their programs and, therefore, would seek to avoid assessment by such criteria.

Too narrow an assessment scope can lead to an impasse in communication between evaluator and implementor, to unfair evaluation, or to erroneous conclusions about the worth of programs--with far-reaching political and personal consequences. People clamor for results. The effectiveness of many of these programs and eventual pay-off for society may lie in first achieving growth and motivation beyond the minimal skills, e.g., maximizing existing interests and talents to develop a sense of competence, engendering feelings of acceptance, and generating hope and desire. In the search for common criteria by which to judge all programs, some of the most significant variables and outcomes for poverty youngsters may be missed.

Scientific Models and Methodologies

Analysis of these extremes serves to crystallize the need for a new scientific model. Increasingly in recent years there have been admonitions to create a model appropriate for man's holistic functioning.⁶ Repeatedly the case is made that a physical science model which is reductive and molecular, one which views man only externally as an object must give way to a humanistic model which is organismic and fits a vision of what it means to be fully human, one recognizing that man is subjective, complex, and functions as a totality. When attention is turned to affective, intuitive-cognitive, or conative dimensions of human functioning--to the feelings, sensings, images, values, and intentions of self-directive individuals, as in Alternative O--the need for new assessment procedures becomes evident. As long as these dimensions of human development are not fully legitimized as ends, however--as in an Alternative S system--the necessary tools will be slow in coming. As long as man's internal worlds are mistrusted and avoided, category systems and assessment techniques will not include them and research findings will continue to be segmented, group-based, skeletal, perhaps distorted, and devoid of human dynamism, vitality, and individual uniqueness. When research turns its attention to the quality of life, it will need to turn to philosophy, not physical science, as a source of strategies and prototypes for human development--to images of man and what he can be.

⁶ Maslow, op. cit., p. 11. Also, Charles Hampden-Turner offers superb coverage of the subject in his chapter on "The Borrowed Toolbox and Conservative Man" in The Radical Man, Cambridge, Massachusetts, Schenkman Publishing Company, 1970.

Role of Research

Closely linked to the choice of a scientific model is the role research plays in the total educational scene. Two commonly held assumptions would not be questioned by an Alternative S researcher. First, he would join those bemoaning the gap between research and practice, a phenomenon which seems to be based upon a widely held assumption that most research findings are applicable in practical settings and that it is up to the practitioner to make this transfer. Second, he would accept the pervasive linear R&D paradigm existing in education as desirable, i.e., research precedes development, which then is followed by dissemination.⁷ Since he already is immersed in a highly structured educational world, he would rest comfortably with the authority of theoretical experts and undisputed, empirically derived findings. He would perceive this as a solid base for developing educational products, largely exportable "curriculum packages"⁸ or treatments in the service of traditional goals. There would be no need to restate what he considers commonly accepted priority goals.⁹

⁷ Hendrik D. Gideonse reports that OECD examiners found what they considered an over-dependency on linear R&D models, which can exacerbate the problems of application by creating hierarchical distinctions between researchers and practitioners and, if built upon erroneous conceptual grounding, can prove unworkable ("The OECD Policy Review of U. C. Educational R&D," Educational Researcher, Vol. XXI, April 1970).

⁸ Frank A. Schmidlein sets forth as the primary mission of the fifteen regional laboratories the "systematic conversion of research knowledge into improved educational practice," p. 19. In "The Programs of the Fifteen Educational Laboratories," Journal of Research and Development in Education, Vol. 3, No. 2, Winter, 1970, College of Education, University of Georgia, Athens, Georgia. In the same volume Francis S. Chase, in "The Laboratories: 1970 and Beyond," writes that "over \$17 million of the less than \$22 million of the funds of the fifteen laboratories was used for programs which involve attempts to improve instruction through modifying materials, teacher behaviors, and other elements in the learning environment," p. 111.

⁹ Op. cit., Gideonse also reports the OECD examiners' surprise that few explicit statements of educational goals or objectives and few clear mechanisms for defining them existed. Consequently they found considerable imprecision of goals for research; this was cited as a major problem. Vague, global goals have characterized much of educational history--those which will not provoke controversy and which provide the system raison d'être.

An Alternative O research coordinator, on the other hand, would question the assumption of building only upon prior research, claiming it is meager,¹⁰ largely cognitively oriented, limited to deduction from theory, and heavily motivated by isolated academic interest or desire for professional gain, rather than from commitment to helping young people grow and change. He would define educational problems to a great extent out of his own experience, by pushing the limits of tacit knowledge.¹¹ Although he would seek to validate his conceptualizations with others, his own unique experiencing would be valued. Objectives for research and development would reflect his personal philosophy, full human functioning, and that with which he is intimately involved. Since his conception of curriculum is based upon experiencing, he might start with living examples of human growth and change and seek to understand the interactive process involved in each situation, going later to other situations and people to determine the extent to which the same variables appear to be operative. Theory and empirical data would be brought to bear upon outstanding examples, personal hunches and hypotheses, or real problems demanding creative solution.

A strong process orientation would lead such an investigator toward developing and demonstrating living process models, rather than toward dissemination of finished products or materials to be applied elsewhere. Evaluation would be integral to the process of development, with continuous feedback of research findings a key factor in both emergence of the model and in changes within its participants. He would seek to dissolve distance between researcher and practitioner, and put research into the heart of the educative process, which could lead to redefinition of the nature of research. Accepting the reality of multiple socialization influences upon human development, his approach would be inductive and multifaceted.¹² He would look beyond the school to significant

¹⁰ Op. cit., Schmidlein noted that in establishment of regional laboratories few highly analytical descriptions of educational problems based upon research data were found to guide the development of educational problems, p. 19.

¹¹ Michael Polanyi sees the tacit dimension as the realm into which true scientists thrust for emerging definitions of problems sensed and known but not yet verbalized (The Tacit Dimension, Garden City, New York; Doubleday, 1966).

¹² Op. cit., Gideonse also reported that OECD examiners preferred fluid multidimensional research models which are empirical-inductive and can stimulate and improve the relationship of R&D to teacher training, p. 8.

events in children's lives, seeking parental participation in research and observing children in nonschool settings. Since self-evaluation is a basic ingredient in this model, he likely would include youngsters' self-reporting, i.e., growth experiences perceived as highly significant, changing interests and problems, teachers particularly enjoyed, emerging values and commitments, learning style, and scheduling preferences. Subjective, felt validity to the individual would be recognized. He would follow Maslow's recommendation for subjective data and trusting relationships between speaker and listener.¹³ In essence, his approach would be to confront complexity, not to select out what is simple and easily wrapped up in neat little research packages.

Changing Role of the School

Coleman¹⁴ forecasts that communications technology will move the classical function of teaching cognitive skills and content out of the schools and into external resources, thereby challenging even the concept of a classroom.¹⁵ According to him, schools of the future, instead of imparting information, will need to be concerned with two major areas:

¹³ Op. cit., Maslow, p. 12. He wrote, "By far the best way we have to learn what people are like is to get them, one way or another, to tell us, whether directly by question and answer or by free association, to which we simply listen, or indirectly by covert communications, paintings, dreams, stories, gestures, etc.--which we can interpret."

¹⁴ Coleman, James S., "Education in the Age of Computers and Mass Communication," Paper prepared for the Hopkins-Brookings Lecture Series, Computers, Communications, and the Public Interest, December 11, 1969. It will be part of an edited volume to be published by the Johns Hopkins Press in late 1970.

¹⁵ Leslie A. Hart has boldly challenged the principle of teacher-class groupings and attributes most of education's ills to this structure, i.e., a "design for tyranny" (p. 294) which "discourages, impedes, and belittles genuine learning" (p. 296) (The Classroom Disaster, Teachers College Press, Columbia University, New York, 1969).

- (1) Helping youngsters engage in productive action with responsibilities that affect the welfare of others, developing self-respect and satisfaction, and gaining experience in coping with life's problems.
- (2) Developing strategies for managing and using the richness of information possible through out-of-school communications resources.

A reversal of roles will be created. Where out-of-school life used to provide necessary direct experience, this will become a function of schools in the future. How would proponents of the two belief systems respond to such a forecast or meet such changing environmental influences?

It would be difficult for Alternative S educators to give up their very reason for existence. Theirs likely would be a competitive stance--with the latest technological installations being made in more or less traditional settings and organizational structures in order to impart more information at a faster rate and prove the rightness of their traditional mission. Even more money would be invested in dressed-up versions of the same old approach. Even though the scope for selection and prescription would be broadened, this would continue to be done largely for learners. Preoccupation with the latest means of presenting and covering separate subject areas and disciplines efficiently would serve to deny both the inadequacies of such a system to provide an experiential curriculum and the resistance to change. A market for highly structured and carefully sequenced materials likely would continue for some time. Educators have tended to jump on bandwagons (and quickly off again). Hart¹⁶ says what is needed is genuine replacement, not renovation.

Such a change in role would be welcomed by Alternative O educators because it would create their reason for existence in the eyes of many who otherwise would be skeptical of their experiential approach. Some would sigh and say, "The times finally have caught up with Dewey!" They would stimulate development of a wide range of media and materials from which learners could choose--media for getting at internal (personal) as well as external (public) knowledge, devices for evoking deeply felt

¹⁶ Op. cit., p. 294. Hart calls for a quantum jump in innovation, not gradual change and definitely feels the traditional classroom must go.

personal response and demanding an integration of the learner's sensory-motor responses, affect, cognition, and attitudes. Preference would be for problem-centered, multidisciplinary content qualitatively different than traditional bodies of abstract knowledge. Input would be for the purposes of involving, stimulating expression (not just for covering content and skills), provoking further study, creating, communicating, and valuing. These concerns would cut across areas of interest--from reading and vocational education through the arts.

With the assumptions of human uniqueness, multisensory functioning, and individual experiencing and conceptualizing as basic premises, there would be far less concern for sequential instructional materials and more for what has impact upon learners. In reading, for example, emphasis first would be upon creating need and desire to read before making available multiple technological and teacher aids from which children can learn in a manner most suited to them. As soon as possible, reading would become necessary to a problems-approach and be integrated with other communication skills in a systematic search for personal meaning.

Reading has a broad definition in this context. One can imagine, for example, that learners independently define an area of pursuit and are urged first to clarify their existing conceptualizations in order to determine what concepts can be expanded and deepened and what questions can be answered. Not only do learners read printed symbols on a page, but they also learn to interpret pictorial, map, graph, object-artifact, sound, video, computer screens, computer print-outs, and other available data. In the pursuit of understanding they receive multiple inputs from communications devices and other physical resources and learn to interpret auditory, olfactory, visual, color, tactile, spatial, and movement cues. Youngsters need to know not only how to use a library for books, but how to browse through or scan entry devices for multi-media sources, as well, and how to skim, gather from, evaluate, and organize all these data.

From such varied inputs and explorations they next generate their own personal meanings by revising and revamping their initial structurings in the light of new data, communicating them according to preference either for immediate use or for storage. They write, type (ordinary or computer console), tape, produce slides or models, dramatize, diagram or illustrate--but probably use a combination of means. Particular emphasis is placed upon new insights, emerging questions, hunches or hypotheses, and vague perceptions of problems and relationships not seen or felt before that hopefully will be picked up later, refined, deepened, and perhaps related to other pursuits. The internal integration and restructuring inherent in creative expression is important

at this point to crystallize the essence of the search--the overriding meaning from their effort--for retention purposes as well as for intrinsic satisfaction and joy in the process of creating. Learners are consciously engaged in expanding their own conceptual frameworks and trying out immediate interests as candidates for potential valuation and commitment in the future.

Reading of a different sort is also important in this system because of the emphasis upon interpersonal communication. Participants learn to read people.¹⁶ As they interact they learn to read and interpret non-verbal attitudinal-affective indicators. They seek to observe the results of events, actions, and attitudes on self and others and to interpret their meaning. In the process of transacting, they learn to read their own sensory-bodily and emotive cues in response to such situational input and project them against past experience for personal meaning. Much encouragement is given to tuning in to the thoughts and feelings of others and to sharing psychological space, as well as verbal symbols. Reading would have many faces, but so would all areas traditionally conceived as "curriculum." All would be interwoven in the pursuit of larger meanings, with drill sessions interspersed when needed. A program of this sort is a radical departure from the lock-step total classroom approach at the other extreme.

Individual Differences

Probably the contrast of greatest import to all participants in the educative process is in the possibilities for basing programs upon individual differences. This is an old and continuing issue at the crux of much conflict and controversy that also lies behind the panaceic appeal of "individualized instruction" to which many people are responding. An Alternative S system has, by its very nature, a built-in incompatibility with the meeting of individual differences. A comparative perspective and priority emphasis upon abstracted bodies of knowledge and skills which must be imparted to all by means of common norms and standards in a classroom-grade-level organization is at odds with the concept of individuality. This discrepancy places teachers in conflict between the ideal of creating programs to develop human uniqueness and the practice

¹⁶ Guilford, some years ago, pointed out the need for developing social intelligence and lamented the fact that little or nothing has been done on the part of the schools in this domain ("Three Faces of Intellect," Amer. Psychologist, 1959, 14, (8), 469-479).

of exposing all youngsters to essentially the same experiences, at least in the earlier years.

Subgrouping within classrooms, varying the pace or entry point on a pre-established amount of material to be covered in a set period of time, and carefully programmed instruction which can be pursued independently does help, although this kind of individualizing currently is limited largely to the narrow cognitive goals of the instructional model. Technological assistance can increase efficiency in doing what education has always attempted, but it will not resolve the basic conflict. As long as common requirements exist, no amount of disguising fixed groups can escape the acumen of students in determining where they are on the totem pole of prescriptive expectations. Damage self-esteem resulting from school attendance, which is one of education's major problems, has its roots in application of narrow, single standards to all. Students will share what they are doing with one another. For many of those who pass through our compulsory education system such derogation starts early and is prolonged over most of their developing years. For those whose life priorities do not include or extend beyond cognitive development and academic achievement, such use of technology is likely to have minimal impact.

Human uniqueness is at the very core of Alternative O; the self is at the center of this belief system. Self-education, choice, creativity (which is individuality in action), and pluralistic appreciation and valuing of individual contributions characterize this environment. "Individualization" in this hypothetical model, as a result of quite different interaction patterns, includes much more than cognitive development. Since concern is with whole people and interpersonal transacting, it is more individualized relating, rather than instructing, and is based upon personal cognitive-attitudinal-affective characteristics and emerging life-styles of learners. The dynamic nature of the program tends to make individualization more spontaneous than preplanned, although there would be some preplanning in cognitive areas. Youngsters would be given much opportunity for self-diagnosis of basic skills and knowledge. The major prestructuring would be done in the conative dimensions, perhaps through temporary assignment of youngsters to functional situations or groupings likely to spark curiosity, problem sensing, and action. Figure 2 illustrates how the alternative approaches might vary in terms of the amount of the person involved, shows the extent to which there is relatedness, and differentiates areas in which individualization would likely be preplanned from those that would likely be spontaneous.

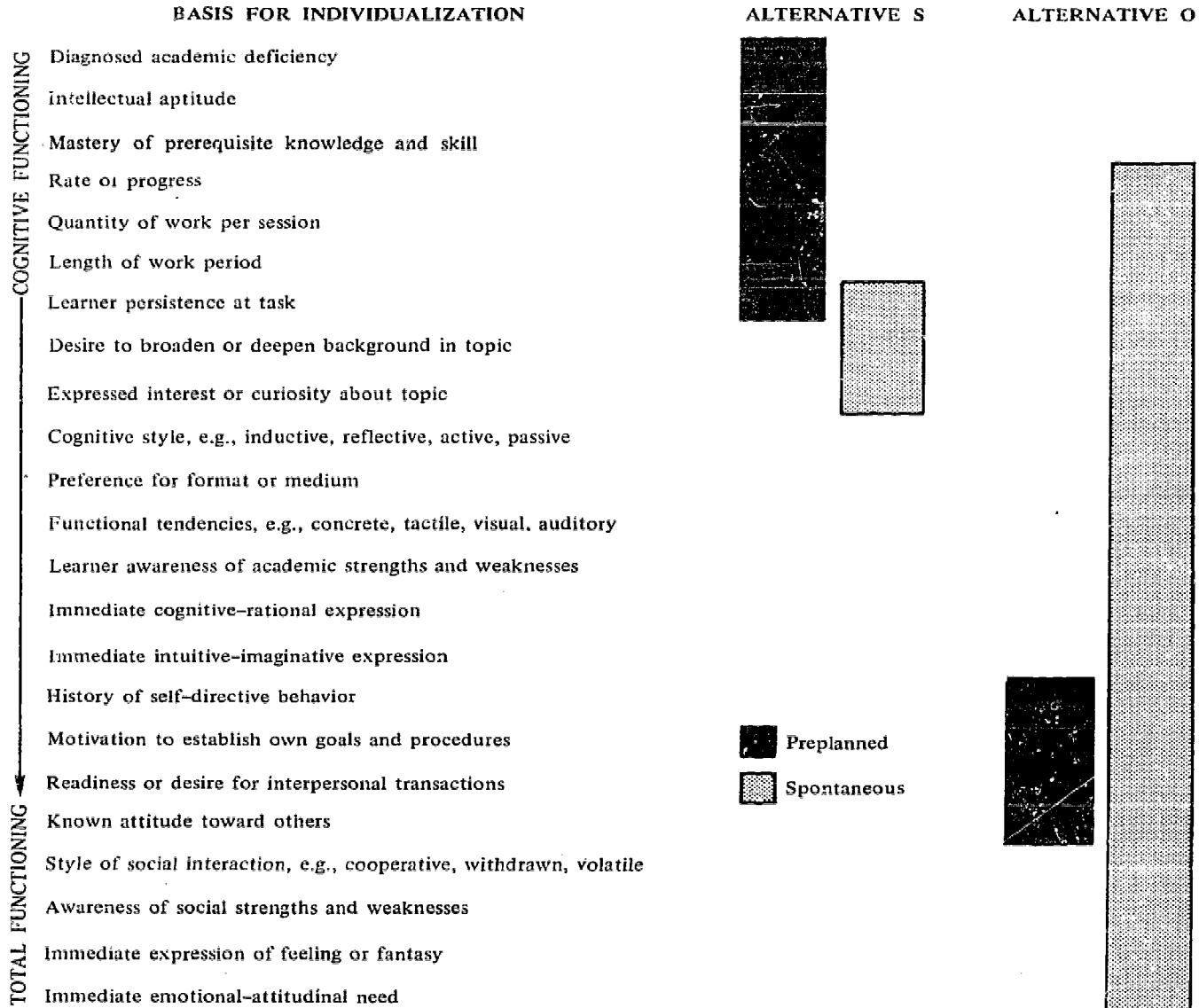


FIGURE 2 AREAS AND MODES OF INDIVIDUALIZING

Conceptions of Intelligence

As a predictor of academic achievement, intelligence traditionally has been defined to fit an Alternative S system. It has been a useful instrument for grouping and classifying youngsters within the organizational structure--a handy, "objective" device for pushing some ahead, maintaining the majority at a steady pace, and explaining the failure of some. In a verbal-symbolic world, ability to reason abstractly, manipulate written symbols, and acquire knowledge is extremely important. Since intelligence has been defined in these terms, this has been the domain of human functioning which has received attention and been given status. Unfortunately, not all students have grown up in environments that emphasize abstraction.

A recent appeal was made for better measures and definitions of intelligence and learning and for more observance to get better leads on what influences success and failure in learning.¹⁷ It seems what is really needed first are broader and different conceptions of intelligence, a situational frame of reference, and a process definition¹⁸

¹⁷ In Behavior Today, May 11, 1970, p. 6, a report from the President's Commission on Mental Retardation, "The Six-Hour Retarded Child," is described as summarizing a conference on urban education and calling for more research on adaptive behavior and postponement of "the final diagnosis" of intelligence until correctives have been tried. James O. Miller, a conference participant and director of the National Laboratory on Early Childhood Education, Urbana, Ill., was quoted, "If we were more observant, we might get better leads on what influences success and failure in learning."

¹⁸ Lawrence G. Thomas does precisely this in "Implications of Transaction Theory," Educ. Forum, January 1968, 32 (2), 145-155. He describes mind and intelligence not as entities, but as qualities of interaction between a purposing person and a perceived environment, as minding and intelligent acting located in the situation and not merely in the person. A transactionist would argue, according to him, that "neither a genetic factor nor an environmental factor by itself could be a constant in predicting intelligent behavior comparatively" (p. 151), that the contribution would vary under different conditions, and that it is more important to improve than to predict intelligent minding. Concern from this perspective would be "what kind of environment for what kind of persons at what times of life in what frames of reference are most effective in enhancing intelligent minding" (p. 152).

to supplant the notion of capacity (whether innate, learned, or a combination of both has been argued in many ways and places). Alternative O provides all of these, and furthermore, finds the age-old controversy over the sources of intelligence of little consequence, since man has not even approached utilization of the powers he possesses.

In the first place, there would be far less concern with labeling people or defining intelligence as a capacity or ability within the person and much greater interest in actions and impact of intelligence upon persons or environment, in developing acuity and sensitivity, and in increasing the potential for functioning wisely and creatively in the process of relating to situational demands and opportunities. "Intelligencing" would involve appropriate, meaningful, or productive transacting with the environment. This process moves into dimensions such as curiosity, self-assertion, intentionality, persistence, self-reliance, and responsibility. To function intelligently requires much more than a limited set of cognitive abilities; it involves the whole organism. To confront and solve problems, for example, requires investment and valuing (of whatever is involved) sufficient to cause pursuit of a felt problem, sufficient tolerance of ambiguity and penetration for accurate sensing and defining of problems, enough cognitive fluidity to engage in analysis and synthesis or deal simultaneously with parts and whole, and ample freedom to allow flexibility and originality in producing personal redefinitions and complex, unitary, multirelational conceptual frameworks. The concern in Alternative O would be with establishing conditions which can free individuals to actualize themselves. Rather than seeking separation and identification of isolated skills, emphasis would be upon holistic functioning, on facilitating experiences which unify affect, body, mind, and spirit, increase a sense of aliveness and competence, and cause individuals to transcend their own bounds, thereby subjectively experiencing growth and change. Alternative O educators would not dream of trying to capture this process by means of a paper and pencil test alone, nor would they value such a fossilization of an instant in the life process if they could.

Opening the door to a different and broader conception of intelligence simultaneously opens a door for many who might pass through the academic world and suffer dire consequences because their aptitudes are little valued within the school culture. It legitimizes the so-called "horse sense" or common sense ability to size up situations, define problems, lay out alternatives, and take action, which many so-called uneducated but experienced persons manifest. It provides a rubric under which many of man's abilities can be placed and several taxonomies of cognitive functioning can be viewed, as well as one which serves to put man back together into a whole being. It frees us from a limiting

definition which restricts attention to a narrow band of human functioning and denies existence to other powerful human capacities during most of the important years of early development.

Educator Selection and Preparation

Clearly, a new breed of educator would be needed for Alternative O. The legal course and credential requirements that have produced teachers for an Alternative S system simply will not produce the kinds of people who would believe in and could implement O-type assumptions and practices as they have been described. Two very discrepant life-styles are required for compatibility and effectiveness in the two systems. Even the label "teacher" is inappropriate to this belief system, since it is not primarily an instructional or schooling system. Adult participants in this model would be in the process of their own continuous change and development, those who desire to interact constructively with young people.

Although this section has been captioned "Educator Selection and Preparation" it seems much more appropriate for Alternative O to call it "Eductor Screening and Involvement," from the Latin eductor, one who leads, draws, or brings out something potential or latent. This would not come about by superficial role-playing or manipulation of students, but as a result of authentic relating, inspiring example, friendly assistance, and opportunity for self-development.

New criteria for screening would have to be established to locate "eductor" potential. Conscientious, conforming students who have fit the existing system may be too structured, docile, or limited in experience to create and sustain necessary change. Independent self-assertion, commitment to innovation, involvement in own pursuits--these seem important in addition to the characteristics of "abstract" individuals referred to earlier (p. 33). In addition to current manifestations of such qualities, biographical data based on developmental antecedents (especially parental child-rearing practices) to "abstract" functioning or creative performance¹⁹ would be useful. Life styles emerge from

¹⁹ Two standard references to antecedents of creative functioning are Donald W. McKinnon, "The Nature and Nurture of Creative Talent," Amer. Psychologist, 17 (8), 1962, pp. 484-495 and J. W. Getzels and Philip W. Jackson, "Family Environment and Cognitive Style: A Study of the Sources of Highly Intelligent and of Highly Creative Adolescents," Amer. Soc. Rev., 1961, pp. 351-359.

life histories. Basic personality tendencies toward openness, self-confidence, and acceptance are needed, not superficial application of "method." Eductive power comes from living what one is.

Schools of education are not the best sources for a population of this sort. It seems more advantageous to select from those who have bucked the system in order to improve it, perhaps some rebels with a dash of charisma, who could mobilize constructive action, bright under-achievers who do not work effectively under paternalistic control, or those who drop out of school to engage in other pursuits for a time. Community colleges may be a fruitful source of untapped potential--individuals who chose not to fit the secondary school system and hence would be open to revising it, late maturers or those who have not yet made career choices, and many who simply cannot afford to attend a university. Entrance restrictions at crowded four-year colleges in some areas almost demand that opportunity to train for educational careers be shifted to the community college or at least allowed to originate there. Vocational exploration and involvement is particularly appropriate at this age and it does not seem suitable for the vast diversity of sub-cultural backgrounds among the student population that teachers should be selected only from socio-economic groups able to afford four-year college or university work. Teacher drop-out, in fact, may be directly related to this mismatch and limited source of educators.

Consistency of ends and means is the basis of preparation for system fit. Alternative S training demonstrates this effectively. Years of traditional schooling appear to have greater impact than what sometimes is taught in teacher-training institutions. For example, even though "meeting individual differences" and "establishing democratic class-rooms" may be verbalized as desirable, the fact that they are extolled in a competitive-comparative, authoritarian system serves to preclude the application of these principles in practice. Experience with seems more powerful than knowledge about. Teachers, in spite of their training too frequently revert to the way they were taught.²⁰ Alternative S educators are rather effectively developed by a traditional system in which there is no option but fit; it is quite understandable that what has been known intimately and over a sustained period of time seems natural to apply--in spite of discrepancies that may exist between ideal and action.

²⁰ Wallen and Travers, op. cit., found that teacher training appears to have limited impact upon modification of teacher behavior, that new teachers tend to teach the way they were taught, i.e., the power of trainees' own direct experience as pupils serves to perpetuate the model.

Alternative O preparation also needs consistency of ends and means. Potential "eductors" need to experience and conceptualize that which they are to evidence in their own dealings with young people, which means establishing a living example of basic beliefs to be implemented. Putting these assumptions into action would require a mild revolution; it would be most difficult to achieve under a traditional organizational structure or typical classroom approach to training. A nucleus of innovators would have to be brought together in a supportive environment to create such an opportunity for growth and participation. Apprenticeships to work with children and teachers participating in the model would be more appropriate than academic preparation.

One essential difference between the two approaches lies in this consonance-discrepancy of behavior with professed values. Voiced allegiance to global but desirable goals²¹ may serve to assuage the soul in Alternative S, but it would not eliminate conflicts resulting from holding values that are incompatible with system requirements. Alternative O adult participants, free of system binds, would seek actualization of such goals with minimal stress. Figure 3 illustrates some of the most potent issues to be confronted prior to entrance into either model. These are critical conflicts that have marked effect upon the broader culture--that is, if the educational institution has any impact upon those it seeks to prepare for cultural participation.

To the extent that potential Alternative O participants can be helped to function as described in the left-hand column of Figure 3, they will be effective in bringing forth the potential of young people for growth. To the extent that Alternative S trainees remain in conflict, their energies will be dissipated toward their own defense and they will relate ineffectively to others. Such conflicts felt by educators and, as a consequence, experienced by youth as discontinuities and inconsistencies through most of their developing years, feed directly into cultural issues of pluralism, freedom and democracy, creativity and constructive change, authenticity and alienation, and human dignity--and likely underlie a great deal of student protest.

²¹ Some of the most common global goals are development of human potential, individual uniqueness and differences, tolerance and respect, pluralism, democracy, social participation, social conscience, and citizenship.

A L T E R N A T I V E S

Conflicts of teacher over dual cultural charge to perpetuate cultural tradition and develop individual potential

A	Developing individual differences	- Requiring same for all in organization and curriculum structure
L	Acceptance of differences	- Minimal attention to differences
T	Individual relatedness	- Comparative perspective
E	Guidance-curriculum unity	- Guidance and curriculum separation
R	Burden of proof on system (to meet background needs)	- Burden of proof on student (to meet standards)

A

L

T

E

R

N

A

O

Conflicts over inconsistency of ends and means

T	Democratic management	- Authoritarian management
E	Know children intimately	- Maintain distance
R	Freedom	- External control

N

Conflicts over creation of problems in youngsters

T	Expression and creativity	- Conformity to social norms
I	Idiosyncratic growth and development	- Socialization demands and expectancies
V	Growth motivation	- Defense orientation and motivation by fear of failure
E	Curiosity	- Covering content

O

Conflicts over role expectations and stereotypes

Person who <u>is</u> and <u>feels</u>	- "Teacher" role
Authenticity	- Expected behavior

Conflicts over social acceptance in community

Respect and prestige for competence as enhancers of human growth	- Servant role and negative "educator" image
Cooperative-collaborative relations with parents	- Competitive-threatening relations with parents

FIGURE 3 CRITICAL CONFLICTS IN EDUCATOR PREPARATION

Development of self-awareness²² differs in preparation for structure and preparation for openness. Greenberg²³ sees the emotional life of teachers as (1) the most serious omission in teacher training and (2) the most powerful force affecting the entire teaching process. As a remedy, he advocates exploration of the full range and depth of the feelings of teachers to enhance understanding of this basic ingredient and devotes an entire book to the kinds of emotional problems teachers have experienced in traditional systems. Since self-awareness is basic to Alternative O and a necessary precursor for acceptance of others, a variety of known techniques for increasing self-awareness no doubt would be brought into the experiential approach of this model.²⁴ Access to emotional determinants of behavior should minimize both defensiveness and what appear to be irrational acts.

Another important distinction would be in the extent to which adults or children are the focus for change. In Alternative S there is an implicit assumption that once techniques are learned the teacher can change children, while she remains relatively constant in treatment of them. Alternative O, on the other hand, sees the involved, transcending adult as a most effective model with whom young people can identify.²⁵ Youth can learn in the process of relating to or participating and growing with inspiring provocateurs or adult friends.

²² Anne Roe appealed to psychologists for attention to this priority area of emotional awareness in her presidential address some years ago ("Man's Forgotten Weapon," Amer. Psychologist, 1949, 14, pp. 261-266).

²³ Herbert M. Greenberg, in Teaching with Feeling, New York, Macmillan Co., 1969, writes, "The human, emotional qualities of the teacher are the very heart of teaching. No matter how much emphasis is placed on such other qualities in teaching as educational technique, technology, equipment, or buildings, the humanity of the teacher is the vital ingredient if children are to learn" (p. 20).

²⁴ Robert E. Mogar offers a deliberately broad and flexible theoretical framework adequate for the task of forecasting alternative innovative educational systems and for facilitating such experiential learning. He includes a psycho-social model and the dynamics of self-directed growth ("Toward a Psychological Theory of Education," Journal of Humanistic Psychology, Vol. IX, No. 1, Spring 1969, pp. 17-52).

²⁵ Jerome S. Bruner discusses the identification process in terms of "competence" models--as resources attainable by interaction--who can become part of students' internal dialogue (Toward a Theory of Instruction, Cambridge, Massachusetts, Belknap Press of Harvard University, 1966, pp. 122-124).

There would be many such differences between the two approaches. In brief, "teachers" and "eductors" would possess different personality characteristics to begin with, and these would be reinforced and developed through diverse preparatory experiences.

Managerial Strategies

Organizational-management differences can be further illustrated by a brief description of how the models might approach conflict resolution, e.g., strong student protest. Handling of controversy and dissent in a structured system, based upon old methods and world views, would tend to be on the basis of restriction to detached, official rules, regulations, and procedures for specific events and known problems. Efforts would be made to deny or dampen protest and maintain tranquility, perhaps to avoid scrutiny. If conventional punishment for nonconformity were not effective, a strict law-and-order reaction to threat would be taken. This crisis-regulative approach is familiar and frequently demonstrated. Alternative approaches need consideration, most importantly, those which allow shared problem-definition and genuine attempts to understand areas of disagreement.

The contrasting open approach, consistent with trends in business management strategies,²⁶ would anticipate crises, rather than just react to them. Perspective would be comprehensive and relative to a long-range planning horizon, which allows an altered view of immediate protest in a broader context and furthers redefinition of problems. Openness, which demands both conflict confrontation and innovative solutions, requires participation and coordination of all who are involved. It is based upon flexible, shared responsibility, rather than centralized dictation of absolutes. What participants think and feel is important--and the reasons for these internal concerns. Protest in this model would be viewed relative to the goal of achieving quality living. Thorough and open exploration of basic assertions and intents would reveal destructive desires and weaken the power of those who attempt to incite mob response.

²⁶ Notes from a Presentation, Values and Social Change, by Arnold Mitchell, Senior Social Economist, Educational Policy Research Center, Stanford Research Institute, Menlo Park, California, May 1970, pp. 18-20.

More specifically, an open system uses direct human encounter to get down to gut-level issues that are situationally relevant and deeply felt. A dialectical approach,²⁷ based upon respect for all, is used to get to know others and to release their potential for proposing original alternatives to constructive action and creating new structures. It essentially promotes an upward influence, rather than a stifling control, and seems to be based upon the sharing of a common problem space. What might have been avoided on campuses across the nation by use of such an approach can only be surmised.

The recent proposal to employ a voucher system--perhaps a less emotionally charged issue--provides another example of differences in managerial perspective. Alternative S individuals immediately would be tempted to seek control over criteria upon which schools or centers are qualified to educate. Accreditation would be based upon traditional criteria. The procedure probably would be to first establish overall policy structure within which voucher policy would exist and then spell out rules and regulations to cover all dimensions relevant to this structure. This is rather like the man who, at the beginning of a workshop on creativity, says, "All right, let's first define the bounds of creativity." These requirements would depart very little from what exists and can be seen within a classroom image, e.g., all centers would have to include and probably start with the "basics." It would be protective of the existing system. A whole host of specifications would be established: criteria for certifying teachers, curriculum requirements, basis for accepting or rejecting students, standard governing procedures and ways of dealing with parents, appropriate facilities and resources, and level of funding. The question most

²⁷ Charles Hampden-Turner describes this approach in detail in The Radical Man, Schenkman Publishing Company, Cambridge, Mass., 1970. He feels the polarized world can be reconciled and more complex integrations of ideas achieved through dialectical reason. This is the unique accomplishment of the radical or creative personality, who can perceive the other, withstand the risk and shock of dialectic, can suspend and reconsider his ideas and relinquish incompatible aspects, and tolerate delay in self-confirmation until the dialectic gives way to synergy. The level of synergy depends upon the resources of the parties and their ability to withstand temporary suspension of structure. He writes, "In disputes between these false dichotomies one side is not right and the other wrong, rather both have part of the truth and need each other" (p. 262).

frequently asked would likely be, "How can we make sure that core values and knowledge are transmitted and basic skills are taught to everyone?"

In contrast, Alternative O individuals would work to break down the monopoly of the existing system and encourage bold departures in all those dimensions the other system would tightly specify. They would value diversity and have faith in the ability and right of sub-cultural groups to define their own educational problems and seek solutions appropriate for their situation at any given time. They would give freedom to match growth experiences with the backgrounds and motivations of learners, and believe that sound structures can best emerge on the basis of flexible confrontation of actual problems. They would be prepared to accept the fact that certain groups might decide that schools which in no way resemble those into which their youngsters have not fit in the past would be the most effective in stimulating desire for learning. Their question would be, "How can we facilitate and support the innovations needed to provide sub-cultural groups the quality of education they feel they need and desire?" This approach involves the ability to tolerate risk to the status quo and the known, e.g., it is entirely possible that some sub-groups would choose to teach hatred. Risking, in turn, rests upon deep faith in human potential to be constructively self-directive and a conception of cultural cohesion based upon relatedness and investment in others, rather than upon acquisition of common knowledge and skills and control of others. There seem to be two issues at stake here. One is that if subgroups are accepted and respected and their needs are adequately met, frustration and destructive tendencies will be dissipated. Another is a question posed earlier. How much sense of community and responsibility to the broader culture will develop under O-type conditions?

Socialization Context

In conclusion, the two models must be seen in the larger context of socialization to round out appreciation of their differences. Viewed in the perspective of a life span, formal education actually comprises only a small portion of a socialization-participation-disengagement process that all people experience. In this process young people are bombarded from many sources by competing values and expectations that often are highly discrepant with one another. Youngsters are especially sensitive to such discontinuities. Some become fragmented as a result of multiple pulls and enticements and fail to emerge with a strong enough sense of personal identity to overlap the various roles and situations in which they will continue to find themselves (of which the student role is

merely one). Others attach themselves to one or two very strong influences and cut off input from other sources. Some find a balance, but many reject adult influences altogether, turn to their own resources and goals, and actively resist adult efforts to mold them.²⁸

How adults perceive their task relative to this overall process of socialization makes considerable difference in how they approach and what they expect from both young people and the families of which they are a part. Table III outlines more specifically the attitudes and approaches that would be taken in each model to a number of socialization issues. Alternative S tends toward exaggerated self-importance and ethnocentric imposition of school values upon the family. Alternative O is more accepting of the reality that some of the most powerful influences are those outside of school and tends, again, to look to the internal, to use dialogue and collaboration, and to take a gestalt perspective upon total human development.

In the traditional Alternative S system, education essentially has been a series of hurdles for students to jump, commencing with entrance into the system and ending with exit from it. What development has occurred prior to this entrance date (during pre-school years) has been of little concern or merely a vague question to educators until relatively recently. It has even served as an excuse for system failure. Increasingly, it has become necessary in programs dealing with poverty groups, however, for public and professional attention to be focused downward into early childhood. Largely, this attention has been geared to discovering antecedents to later malfunctioning in school and to developing preventive-remedial measures to enhance school performance. At the other end of the formal system--beyond school and into adult life--little has been done. Concern for continuing education in this system is of relatively recent vintage.

In contrast, the Alternative O model offers considerable utility and perspective for life-long development. A conception of self--an individual identity--remains at the core of both being and belief systems²⁹ throughout life. There is a felt continuity accompanying growth, which seems isomorphic with the way life is. It is an appropriate model for early childhood, the years devoted to formal schooling, and

²⁸ John A. Clausen (Ed.), Socialization and Society, Little, Brown and Company, Boston, 1968.

²⁹ Rokeach, op. cit., stresses the centrality of beliefs about self, pp. 40-42.

Table III
APPROACHES TO SOCIALIZATION ISSUES

<u>Alternative S</u>	<u>Alternative O</u>
Has strong belief in power of school's influence	Recognizes classroom as one subsystem or case of socialization
Is deeply concerned with instruction	Recognizes human context and influence of multiple reference groups
Has tendency to function independently of other socialization agents	Assumes complementarity of socialization agents and importance of self-continuity across groups and influences
Assumes school is what is most real to students	Assumes what is most real varies within and among individuals
Coordinates with other agents by teaching them how to adapt children and themselves to school.	Collaborates or plans; shows concern with attitude change
Imparts knowledge and information deemed vital to culture	Is actively involved; establishes criteria for changing own values
Manifests directing; one-way communication; expectation of compliance	Stresses dialogue, two-way communication
Superimposes values and predominant concerns (primarily knowledge and cognitive skills); expects that authority will be recognized	Shares values and concern for multiple objectives (whole individual)
Shows a concern with content that would deny expression of influences outside school; is curriculum bound; ignores other agents except when they complicate school program	Is open to expression of nonschool influences and intrapersonal awareness; utilizes learning in nonschool environments
Starts with academic development; "first things first"	Starts with social-emotional-motivational development
Fragments relatedness of adults to young	Maintains continuous <u>total</u> relatedness of adults to young

Table III (concluded)

<u>Alternative S</u>	<u>Alternative O</u>
Does not consider peer relationships primary responsibility of school; groups for instructional convenience	Considers peer relations basic to individual functioning; uses group situation as opportunity for social learning
Stresses core values and skills; societal fit via individual preparation for it	Manifests concern with uniqueness and individual growth
Teaches <u>about</u> democratic process and ideals	Uses school as workshop in democratic participation; responsibility for individual members; mutual involvement
Extols values of pluralism	Develops first-hand appreciation of individual differences
Encourages covert competition for influence among models	Tunes in to multiple models
Has authority figure models, static roles, formality, rule enforcement; creates possible discrepancy between word and deed due to role demands	Has person-oriented models; congruent, flexible people; attachment via relatedness and concern for subjective responses
Uses separate efforts to influence; likely to give conflicting, confusing messages to young	Attempts more consistent messages; more overlap and continuity
Depends on external control; independence restricted until age-grade requirements are met	Stresses internal resources; utilizes growth need for independence
Tends to value adult standards and devalue peer influence; anti-adult influences viewed as threat	Utilizes peers as resources and partners in socialization processes
Funnels and refines young to fit preconceived notions	Develops awareness of socialization process and changing values
Insists on external judgment when young diverge from adult goals	Supports experimentation and maximal participation in socialization

the continuing participation of individuals in adult life. It would be relevant to the multiple systems and settings in which people find themselves and is a way of bringing increased focus upon the individual, rather than just upon a system. It applies to all individuals involved in socialization and is a model suitable not just for formal education, but also for parent education (e.g., desirable practices for rearing children), psychological assistance, career guidance, training of social workers and police, or recreation workers, and for geriatrics, an area toward the upper end of the socialization process about which we know too little and for which we do not at all prepare our youth.

In the traditional step-ladder system the early socialization phase of this life-long process--that period concerned with inculcation, modification, constraining, and preparing young people--is divided into parceled-out responsibilities among various major socialization agents. Underlying this division of labor and responsibility is an implicit assumption that agents external to the young person have the right and responsibility to socialize him. Education, for example, is compulsory. People tend to think in terms of certain familiar major subdivisions and allotments of life-time and developmental emphases that are presented in Table IV, a brief overview from which several stress points and discontinuities emerge and which illustrate the ease with which latent dangers can become manifest and lead to dysfunctionality.

The first point of abrupt cultural discontinuity occurs at the time of public school entrance. One impact of this is seen most poignantly in the gradual dropping behind through the school years of many youngsters--those who do not share the experiential backgrounds, values, language patterns, and attitudes of the prevailing middle-class, Anglo-Saxon school and community representatives in charge of public education. Although inroads are being made to correct this discontinuity, many injustices have accrued over years of forced and reluctant socializing³⁰ beginning largely at first grade, when learning to read assumes such importance. Solutions, however, have been largely segregational or downward extensions of schooling, rather than offering genuine alternatives to the process of schooling. The message continues to be conveyed to subcultural groups that "differences" mean "not as good" and that they must somehow catch up with their "superiors." Many programs for

³⁰ Harry F. Wolcott talks of "accelerated acculturation" and the tendency of minority students to reject the system in "The Teacher as an Enemy," paper used in Education 507, Cultural Perspectives in Education, at University of Oregon, dated January 1969.

Table IV

ALLOCATION OF RESPONSIBILITIES FOR SOCIALIZATION

<u>Life Phase</u>	<u>Responsible Institution</u>	<u>Key Focus</u>	<u>Key Agents</u>
Birth and infancy	Family	Total child development, (language, behavior, attitudes, emotions, thinking, basic values)	Mother (father participation and kinship group varying with subcultures; no special training)
Pre-school	Family (more recently child care centers and nursery schools)	Above plus group adjustment	Mother, nursery school teachers, or child center personnel (licensed and voluntary)
Primary grades	Public education	Semantic-symbolic development most commonly valued by technological society plus subject areas which incrementally lead toward specialized career preparation (with rising requirements over the years)	Certified kindergarten-primary or elementary teachers
Intermediate or middle grades			Certified elementary teachers
Upper grades or junior high school			
Secondary or senior high school			Certified secondary teachers
Junior college			
College or university			Master's degrees in specialized disciplines plus minimal education requirements
Adult or continuing education			Master's or doctoral degrees in specialized disciplines
		Enrichment (more recently career retraining)	Either credentialed teachers or individuals with recognized specialized backgrounds

the so-called "disadvantaged" clearly are deficiency-oriented, geared only to teaching minimal skills. Alternative O programs would represent a drastic departure which would encourage multiple avenues to self-esteem and development. Learning would not be limited to verbal-quantitative inadequacies; entry points for translation of experience into semantic-symbolic functioning could be established in any mode of functioning, e.g., via dream analysis, body language, sculpture, painting, or dance.³¹

Another discontinuity at the time of formal school entrance lies in the compartmentalization of the child. School is given the intellect for development; the rest of the child remains in the hands of the family or becomes a mixed responsibility of community agents (neighbors, recreation workers, and group leaders of various sorts), church, peer groups, and the multi-media world. Such patternings tend to vary with social class and subcultural group. There always has been confusion--and often controversy--about where responsibility rests when human growth does not seem to go well. Such fragmentation makes it easier for buck-passing. Discontinuous attention to total child development has had its impact because youngsters have continued to develop as entities even though the legitimized domain for emphasis in the public schools has been largely restricted to cognitive development. Continuing attention to the total individual might have prevented much school failure and minimized many of our social ills.

Alternative O would require continuing attention to the total child. Development of full human potential, not just a narrowly restricted range of cognitive functioning, would be the major end of educational effort. "Child development" in the traditional system, on the other hand, has been looked upon by many leading educators merely as a body of knowledge from which to draw conclusions about the appropriateness of learning experiences for different age-grade groups, i.e., as a means to system functioning.

³¹ Ann Halprin's work in dance in San Francisco is an example of this. "An Award for Multi-Racial Dance Research," San Francisco Chronicle, May 22, 1970.

For many students a particular point of stress occurs later when school emphasis upon career preparation becomes pronounced--around the end of junior high school or the beginning of secondary school.³² There are many other developmental tasks that loom large in the lives of young people at this time, e.g., adjusting to changing bodies, establishing hetero-sexual relationships, developing personal value and belief systems that make sense out of the worlds in which they find themselves, and increasing need for independence. Significant effects upon attitudes toward both self and the institution frequently are felt at this time because prevailing cultural expectations and definitions of success are made quite clear. The marked emphasis frequently exerted toward professional development and college preparation, which continues to lie heavily in the semantic-symbolic areas, again results in discontinuity for those whose aptitudes and interests are not in technical-scientific areas. Students with potential in spatial, pictorial, mechanical, motor-manipulative-constructive, or social dimensions of human functioning are not so fortunate in an academic environment. Those especially vulnerable are individuals with potentiality or motivation in poetic-intuitive-imaginative artistic expression who, even if they attain advanced degrees, find a paucity of job opportunities awaiting them in a culture that places relatively little value on the arts. Lack of demand for these specialities serves only to augment frustration.

Developmental stages continue into college. Grappling with authoritarian tendencies in themselves, for example, is a particular problem early in college.³³ There also is increasing internal stress the longer young people, who are struggling toward true independence, are kept dependent upon a paternalistic school system to prepare them for a

³² At this age girls traditionally have been exposed to a double bind that, in view of the fact that education has been one of the few acceptable routes for women's occupational life, may have a marked impact upon the quality of education. They are expected to be simultaneously intellectual and nonintellectual--to prepare for a career at the same time that they become aware of the fact that they really will be successful only if they find a husband and raise a family. Possible underlying role conflict within the profession may be triggered during this phase of socialization; underlying ambivalence about career achievement and utilization of their own potential may be reflected in the life-styles women model in classrooms in later life and the extent to which they tend toward "structure" or "openness."

³³ Nevitt Sanford (Ed.) The American College, New York, John Wiley & Sons, Inc., 1962, pp. 261-262.

future they are not sure they really want, even if the threat of war were removed. When they also question the relevance of abstracted knowledge to the real world which increasingly impinges upon them from outside sources and which they feel within themselves, disenchantment and a sense of waste come as no surprise. They have devoted their lives to a treadmill of academic requirements and hurdles. What is the meaning of a degree for real living even if they are able to survive in the system long enough to attain one?

Many who get off this escalating system earlier and move into the world of work soon find that their training for a single job is inconsistent with real life demands to be retrained for the multiple jobs they will hold during their lifetimes. This problem will increase with the magnitude of change.

These are but a few of the stresses young people feel during the long subdivided socialization period in which they are to prepare for life in a complex, technologically advanced society. The traditional Alternative S system largely has served the prevailing social-occupational-economic political superstructure³⁴ and many young people are in revolt against the material values endemic to this way of life. Past value priorities have suppressed the development of many individuals with tendencies in non-technical domains. Emerging images, attitudes, and values increasingly are out of harmony with the old. Accelerated change in man's technology will only amplify this desynchronization of values.

It is possible that Alternative O could meet at least some of the challenges being hurled at education by our youth, many of whom are in the subjective, internal worlds of human experiencing compatible with this belief system and are searching for the genuine communication to which it gives priority. Discrepancies between word and deed on the part of adults--probably the greatest discontinuity for young people--are under angry attack by the young.³⁵ They have had their fill, for

³⁴ Merle Curti brings out this point in The Social Ideas of American Educators, Totowa, New Jersey, Littlefield, Adams, and Co., 1960.

³⁵ In a sermon delivered at Grace Cathedral, San Francisco, April 26, 1970, Senator Charles E. Goodell (Rep.-N.Y.) emphatically described some reasons why there frequently is hatred between the young and older representatives of the larger environment. He said, e.g., "The young cannot forgive those who clothe the evils in our nation as though they were virtues," . . . "excuse politicians who talk

example, of rigidly authoritarian educators (or parents), in whose presence no opinion dare be voiced, extolling the basic freedoms and ideals of democratic participation and the right to speak out. With the removal of a step-ladder approach to socialization there would be no need for full-scale revolt against a system of external structure and control which serves to rigidify, depersonalize, or dehumanize those who participate in it. Instead, young people could become actively involved in their own socialization--aware of themselves in the process of being socialized--while simultaneously becoming aware of the hidden agendas of socialization agents with whom they come in contact.

Contrast does enlarge perspective. These two educational models represent truly divergent approaches to current educational issues. Beyond any doubt, they delineate different visions of what is most valuable and appropriate for man; the cognitive constructions and language tools of the alternative belief systems lead to different attitudes, actions, and consequences for mankind. These belief networks are exemplary; other combinations of underlying assumptions are possible and do, in fact, exist. Policy options clearly depend upon value preferences and what men are willing to risk to actualize the visions they hold. The most basic tasks of the policy-maker are to (1) create a vision appropriate for and equal to challenges of the times, (2) clarify the basic premises and priorities underlying this vision, and (3) achieve consonance of beliefs with one another and with the actions they take. Both heterogeneity and shift in values demand such a reconstruction of beliefs to counter effectively the disequilibrium about us and utilize the forces toward change to create a desired quality of man and life. Education no longer can be viewed or discussed through a singular, unexamined conceptual filter.

of law and order as a mask of repression," or "understand university administrators who set up a committee as an excuse to do nothing about a known abuse." Excerpts reported in the San Francisco Chronicle, April 27, 1970, p. 2.

V IMPLICATIONS FOR POLICY ACTION

The preceding comparisons and applications of alternative belief systems create an awareness that fundamental value changes in the direction of greater openness, not technological devices alone, are essential to genuine change. Continued support of a system which appears to possess unresolvable dilemmas seems to constitute waste not only of resources but also of time too precious to lose. Two issues must be faced before any actions are taken, and before key policy decisions for long-range planning are made: (1) what can we imagine or create that would be bold enough to move us from the status quo toward growth, to reduce the dysfunctionality of education, and (2) what are we willing to risk to achieve the survival of education, of society, and perhaps of Man himself. With these in mind, some steps can be taken to confront the challenges facing us.

Quantum Leap Experimentation

If bold, imaginative decisions are needed, then let us be courageous in experimenting with genuine alternative visions of educative outcomes and processes. This does not mean modification within a paradigm of "schooling" or perpetuation of the eroding myth that status quo educational structures are either competent or relevant.¹ It does mean deliberate construction of a set of new beliefs and conceptualizations to maximize and actualize human growth potential. Philosophy and value must become

¹ Beryl Crowe, in discussing critical problems for which there are no technical or political solutions threatening the very existence of contemporary man, e.g., population, atomic war, and environmental corruption, points out that both natural and social scientists protect their respective myths of competence and relevance by specialization and working on problems for which there are solutions. These, however, are not the basic issues. The similar insularity of education, much ado in research about matters of little importance to the quality of human experiencing, and avoidance of real societal and world problems that each day are determining our future strongly suggest a similar myth protection ("The Tragedy of the Commons Revisited," Science, 28 November 1969, Volume 166, Number 3900, pp. 1103-1107).

the prime source of developmental prototypes and strategies, not merely research data or theoretical models based upon existing educational environments which impinge upon man and make him less than he could be. A quantum leap could occur by starting with what might be, rather than with what is, with conceptions of man's highest potential, basic beliefs about his nature, and with what is desired. This simple shift to a value base could have momentous impact. Alternative O is thus an illustration of a revolutionary vision--radical in the sense that it departs from popular images of both man and the educative process.

Montagu² feels that we are at a watershed of human development which will demand monumental restructuring in thought and outlook. According to him, the most important ideas about man--those concerning his very nature--have been left in the realm of conjecture and speculation; hence we have based our actions on primitive prescriptions, e.g., that man is sinful, inherently nasty, or, in his terms, that "one need only scratch a man to find a gorilla beneath" (p. 18). Such theories, which are at the very core of man's actions, have been viewed as Laws of Nature; they have been held as abstractions and have not been explored scientifically. He feels attention must be given to growth, one of the basic criteria of the dynamics of life, and urges the behavioral sciences to focus upon the nature of man, his basic needs, and the quality of humanity. In his view the worth of a civilization's values is measured by the effectiveness with which they meet the inner needs of man (including the central need for love), and our values need complete re-examination and revaluation. He agrees with many others who feel there is only one true measure of what a man believes; not what he says, but what he does.

Other key assumptions besides these could become the core of belief systems, e.g., that each man possesses an unfolding internal blueprint, that man's inner reality needs only to be discovered, or that man is evolving as part of a larger consciousness. Such assumptions would demand

² Ashley Montagu, "The Coming Cultural Change in Man," Vista, January-February, 1970. He writes, "If man is to find his proper place on this earth what will be needed is less theorizing and more rigorous scientific investigation into the structure of his nature, for, as Aristotle remarked more than two millenia ago, if we would understand what man is born for it is first necessary that we know what he is born as. If we would apply but a fraction of the energy and money that has gone into landing men on the moon to the study of man's nature, we would eventually enable him to land solidly on his two feet on this earth" (p. 18).

radically different view of man and serve to alter dramatically the limited expectations under which most of our young now develop. Fortunately, there are exceptions³ to the traditional ceilings placed upon human learning at the present time, but more expansion is needed. Think what a change in attitude on the part of youth toward the educational institution might occur if the "establishment" acknowledged inadequacies and dilemmas built into the existing system and actively supported such innovative approaches to the development of man. Suppose, for example, Kaplan were taken seriously (p. 2) and funds were allocated for creating and implementing explicit linkages of belief and action designed to maximize human growth. The opportunity to test convictions and commitments surely would result in a tremendous upsurge of motivation and desire to participate.⁴

³ J. Richard Suchman, for example, operates upon quite open-ended assumptions about man. Reflecting about the first two years of his Ortega Park Teachers Laboratory at Menlo Park, California, which he conceives as a "sanctuary" for learning outside of the existing system, he writes, "More than anything else, I have reaffirmed my faith in the fantastic capacity of the human to learn if given the chance to do it in his own way." He feels the human is an exquisitely equipped born learner, but in order to make the best possible use of this capacity, he must be free to bring it into full play. He states the following guiding principles: "This freedom is enhanced (1) if he is made to feel safe so that he does not have to use his energies primarily for self-defense . . . for survival, (2) if he has open access to a rich and varied environment . . . one that offers a full range of experiences and (3) if he has a wide range of options to access his environment his way, and to make of it what he will: to formulate, test, evaluate, and revise his own meanings and conclusions" (Ortega Park Teachers Laboratory Newsletter, June-July 1970).

Many young people possess a vision of what education might be that is strong enough to move them to undertake founding of schools and universities, even though financial resources for realizing their dreams are limited. Their hopes appear to be very much as Alternative O has been described, e.g., desire for unification of ideas, feelings, and actions (holistic functioning), self-discovery and self-awareness through a variety of feedback techniques (biological-psychological via computer screens or alpha wave profiles, awareness of own cognitive processes, authentic interpersonal encounter), creative growth, expression of personal meanings, and unity with nature. One unidentified young man expressed his hopes for the educative process as, "I teach what I am; I learn what you are." The commitment of youth, given support and challenge, could produce profound results.

Such experimentation would be the result of a definite decision to break free of existing perceptual confinements, to open new windows and provide new opportunities and possibilities for man. Current dissonance resulting from desynchronization of education with value shifts in the broader culture should diminish with such acceptance of diversity. Several innovative models would need to be established and supported outside the existing educational system.⁵ Unfettered creation or invention and implementation is essential; therefore these could not be competitive approaches to attainment of prestructured specific traditional objectives such as common or minimal skill attainment. Rather, they would represent long-range experiments in naturalistic settings with belief systems--with faith in man, with testing the limits of tolerable risks to gather evidence of upward momentum and outward expansion attainable by man. Both sky and horizons would be without limit. Several options for research which would shed light upon these experiments relative to the current mainstream of education appear in Appendix C (Tables 1, 2, 3, and 4).

Assessment of the successes, failures, and problems encountered in the implementation of these innovative social subsystems⁶ would require a radically different research approach. Each model would represent a

⁵ Michael, op. cit., has urged deliberate development of high level intellectual and emotional capabilities for long-range planning in a special cadre of people to serve as models and decision-makers in society's future struggles. He suggested that this be in a "societal interstice" for developing or preserving a different standard and life style (p. 118). Similar "pockets" seem necessary for establishing innovative subsystems.

⁶ George W. Fairweather, in Methods for Experimental Social Innovation, New York, John Wiley & Sons, Inc., 1967, advocates innovative subsystems to test alternative solutions to societal problems. He points out that theoretical models follow empirical findings in isolated disciplines and that social problems involve all disciplines; hence there are few, if any, appropriate theoretical models for them. Quantum-leap experimentation includes depth as well as the breadth and interweaving of a multidisciplinary approach. Initial theorizing is based upon diverse images of man. The intent is not just to make competitive comparison of which solution to a given problem is best, but to bring about systematic social change to meet value preferences, i.e., pluralistic subsystems involving different perceptions of man, of what constitutes problems, and variations in concern about them. Subsystems would involve different outcomes and processes, hence they would be noncomparable on a single-criterion hierarchy.

value-laden cluster of hypotheses about man--an implementation of a complex of interrelated beliefs.⁷ The outcomes primarily would be meaningful and useful to those participating in the system and responsible for its success or failure. This is in sharp contrast to the traditional image of value-free science, simplification of research design by limiting studies to the testing of few or single hypotheses, and measuring the worth of a study by its generality and perceived value to the broader culture. The criterion in this experimentation would be the extent to which each system achieved what the conceptualizers and implementors hoped it would achieve. Recommendations about social or human change would be offered to those interested. However, instead of separate, isolated research articles, ongoing results would be reported in comprehensive documents or books and demonstrations. Particular attention would have to be given to unanticipated consequences.⁸

A community research model,⁹ in which field observation is basic to methodology and in which new ideas, emerging hypotheses, and generalizations are generated for further research and experimentation, seems appropriate for assessing attempts to make diverse value and belief systems explicit and develop educational models from them. Social systems not only involve many variables; they are also dynamic. Variables would change with situations as well as over time; their effects might

⁷ A Third Force image of man was part of the complex of beliefs and theoretical assumptions which formed the basis of a free school funded from September through December, 1966, by the Northwest Regional Educational Research Laboratory. A complete statement of the underlying premises of this experiment appears in two articles by Elizabeth M. Drews ("Beyond Curriculum" and "Fernwood, A Free School," J. Humanistic Psychol., Fall 1968, pp. 97-122).

⁸ Robert K. Merton discussed this issue, which becomes increasingly pertinent as the necessity for consciously constructive choices increases, some time ago in "The Unanticipated Consequences of Purposive Social Action," American Sociological Review, Vol. 1, December 1936, pp. 894-904 (Bobbs-Merrill Social Science Reprint, S-328).

⁹ Gary Hanna, in Educational Researcher, Volume XXI, May, 1970, pp. 10-11, points out that one facet of recent efforts to reshape the research training effort in the Office of Education is the need to design new models for training research, development, demonstration/dissemination, and evaluation personnel in education. It seems that innovative subsystems would lend themselves to the creation of a new model much along the lines of the social science procedures outlined by Fairweather, op. cit.

different later in an experiment than at its inception.¹⁰ Desirable researcher characteristics would include those described by Fairweather:¹¹ (1) interest in and dedication to solution of social problems, (2) rewards from values different from those of either practitioners or academicians, (3) awareness of own biases, (4) discontent with current social practices, (5) satisfaction with fewer publications, (6) astute observation and attempts to describe variables important in real-life situations without regard to method or discipline, (7) willingness to bear the label of "applied" researcher, (8) full-time humanitarian commitment to advancing the general welfare. These attributes are not those of the detached observer who comes into a situation, briefly samples a tiny segment of reality, then disappears into a statistical world removed from the practitioner's problems.

Such experimentation must be viewed as subpatternings within the culture rather than as fragmentations of it. Herskovits¹² makes the point that to think in terms of a single pattern for a single culture is to distort reality, yet this is precisely the tendency manifested in education--bondage to the implicit assumption of a common value standard for all.

Process Model for System Modification

Although some might desire complete discard of the current educational system, that is not the position taken here. The dilemma of societal continuity vs. individual freedom is real; there is a need for solidarity and conservatism.¹³ We have enormous financial and emotional investments in the present system, and it is possible to reduce rigidification. A great deal of gradual modification could occur if there were a deliberate attempt to loosen the system in the direction of greater openness.

¹⁰ The ongoing developmental character of research seems to necessitate the grand strategy advocated by Dr. Harry W. Johnson to "make it possible to learn research methodology through the inquiry mode in a real research setting" (p. 8), Educational Researcher, Volume XXI, May 1970.

¹¹ Op. cit., pp. 34-36.

¹² Melville J. Herskovits, "The Processes of Cultural Change," in Ralph Linton, (Ed.), The Science of Man in the World Crisis, Columbia University Press, New York, 1945, p. 158 (Bobbs-Merrill Social Science Reprint, A-114).

¹³ Hampden-Turner, op. cit., pp. 273-277, feels that every radical man should be a "situational conservative" in appropriate circumstances

A process model of education could increase system flexibility, thereby enhancing chances for the institution's adaptation and survival in the face of future change and turbulence. The particular process model¹⁴ needed for this modification is based upon the assumption of complementarity of extremes, i.e., both structure and openness are needed. Simultaneous attention must be given to societal and individual concerns. Structure provides security, stability, and continuity; openness allows individual expansion and movement to higher levels and greater breadth or depth. The interplay between the two can spark motivation and release energy within the individual to transcend his usual bounds of functioning. The educative process in this model is a balancing and synthesizing of structure and openness that permits optimal stimulation of growth. It is a continuously creative task based upon sensitive timing,¹⁵ not a pre-structured set of specified methods or techniques to be applied to learners, nor a prescriptive recipe for instruction.

One basic strength of this model--if it proves viable--may lie in the fact that it defines the educator's task as a creative synthesis of two diverse configurations of the world very similar to those current in

and that conservatives may supply valuable antitheses which can contribute to higher synergy. He recognizes that human capacities and resources have limits, that there is need for radical-conservative dialogue, and that the meaning of the word conservative is "always relative to some level of anticipated competence which may be attainable or unattainable, well or badly conceived" (p. 277).

¹⁴ The term "process" frequently is limited to cognitive processes, as opposed to products or entities. Numerous classification schemes have been developed for these, a recent example being the set of specific complex mental skills which learners use in transforming knowledges and understandings in order to effect solutions to problems, proposed by Richard W. Burns and Gary D. Brooks, "Processes, Problem Solving and Curriculum Reform," Educational Technology, Volume X, No. 5, May, 1970, pp. 10-13. The process model described for system modification likely would require a wide range of cognitive processes, but it is a much broader conception and should not be confused with a set of cognitive objectives.

¹⁵ Sam Keen, in Apology for Wonder, New York, Harper & Row, 1969, writes that the wise man "knows that sensing the kairos (the prepared or ripe moment) is more important than conforming to the compulsive rhythm of chronological time" (p. 197). This sense of timing, to him, differentiates the wise man from the fool. It is a key component in a new model of man which balances the Dionysian and Appollonian models,

our world. It requires familiarity with quite different patterns of assumptions, with diverse notions of what is central and of priority, and with contrasting life-styles. Since it is not a model that easily can be implemented by just anyone, even anyone able to meet academic course requirements, it could lead to drastic changes in educator preparation. True involvement lies in the nature and challenge of the task itself.¹⁶ The creative educator image which fits this model could entice individuals into the system who thrive on creative challenge, could provide support for those few already in the system, and could accomplish this without unduly threatening the vast majority of educators whose personalities fit a structured system.¹⁷ It allows for two-way movement between structure and openness, not obliteration of one or the other. Policy decision could create both demand and means for this movement.

One way to illustrate the model is as a triangle, with the base representing bipolar tensions or extremes and the apex a synergic balancing created from the energies exerted in the stresses and pulls between these

traditionally seen as mutually exclusive. He describes them as "different moments in perception and action which must achieve a balance for vivid, full human life to be sustained" (p. 193). The mature personality can sense the opportune moment for allowing the pendulum to swing between these two modes of relating to the world (wonder and action). He recognizes that health lies in both and that the synthesis of the two is the essence of creativity.

¹⁶ It has become quite clear in industry that it is the nature of the job itself which is a vital ingredient of motivation (Robert N. Ford, "The Obstinate Employee," Psychology Today, November 1969, pp. 32-35; Donald L. Kirkpatrick, "The Training Manager and Motivation," Educational Technology, September 1969, pp. S32-S35; Motivation and Discipline, one-day seminar conducted by Practical Management Associates, for Sequoia Chapter, Administrative Management Society, January 16, 1970, Burlingame, California).

¹⁷ Walter Mischel emphasizes that human behavior varies with environmental conditions, that uniform conditions are conducive to stable response patterns, and diverse conditions tend to result in behavior variations. ("Continuity and Change in Personality," Amer. Psychologist, 24 (11), November 1969, pp. 1012-1018). Individuals who tend to fit a structured system may be able to function differently outside the school setting under different conditions or if system conditions are altered sufficiently. One crucial variable appears to be ego-involvement in environmental stimuli. Modification of the educator image to include variation in conditions may be another.

two poles. The image of the educator, as contrasted with pure S and O images, for example, would be as shown in Figure 4.

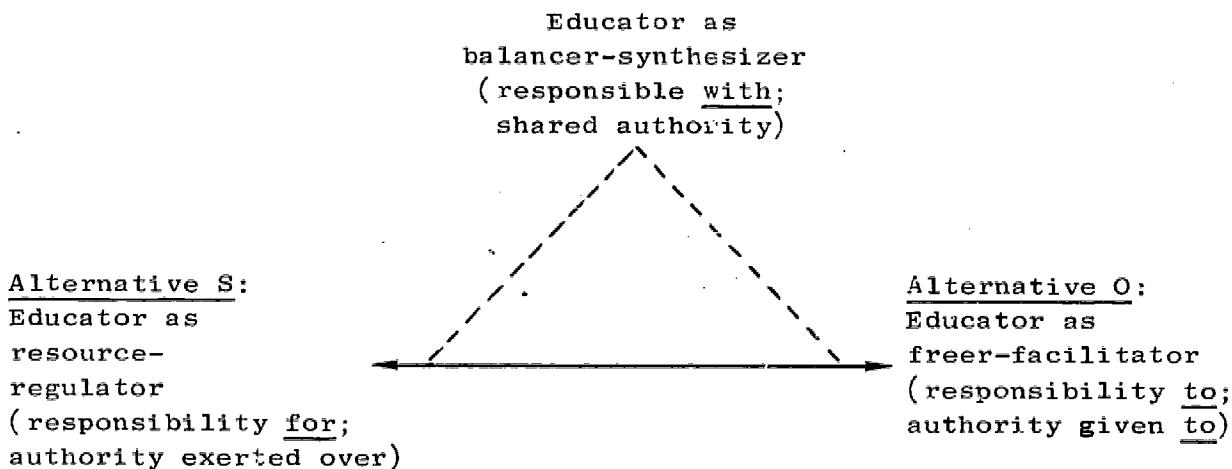


FIGURE 4 IMAGES OF THE EDUCATOR

A similar model could be used in conceptualizing all educational issues in order to locate existing and desired modes of functioning.

If balance or synthesis of structure and openness is desirable for optimal growth and "lifting" learners to increasingly higher levels of human functioning, educators would need:

- (1) A personality that can function comfortably with either structure or openness and present an authentic and appropriate model for both the situation and needs of participants (including self).
- (2) Sensitivity to where self, individuals, and groups are psychologically at any given time--to needs, values, and belief systems and how these world views and related personal histories interact with immediate situations, particularly relative to tendencies toward structure or openness.

- (3) Awareness of self and ability to stimulate via openness continual awareness within each individual of where he is, how he is functioning relative to stresses and pulls of life's basic conditions and confrontations (i.e., in a structured or open manner), the extent to which energy is dissipated, restricted, or released through extreme responses, and what directions and commitments are emerging.
- (4) Flexibility for modifying the environment so as to allow or facilitate alternative modes of functioning and generate potential energy from within, e.g., by providing sufficient input for insight (via appropriate amounts of structure or external data), giving opportunity and challenge to act upon, restructure or integrate data in meaningful and creative ways, and providing support for the risks of reaching into the realm of tacit knowledge and transcending personal bounds.
- (5) Encouragement of a sense of community and synergy based upon sharing the joys and pangs of creative growth.

In this model there is no arbitrary and artificial dichotomy between affect and cognition, nor are conation or commitment ignored. Rather, there is an assumption of fundamental organismic unity in which all of these "domains" come into play, each in its way and at its own time. It is a meta-model without restrictive detail, to inspire creative implementation. It is broad enough to subsume many existing constructs and findings.¹⁸

¹⁸ Perry's research with Harvard students, for example, fits this model especially well, i.e., that there are developmental stages from dualistic to contingent thinking as people endeavor to make sense out of the incongruities of their experience by evolving conceptual hierarchies and responsible personal commitments. Such affirmations of self require a balancing of assimilation and accommodation and a modification of expectancies. The emerging forms and structures extend beyond cognitive assumptions to congruent forms of action, feeling, thought, and care. Educators, who must be open and visible in their own thinking, groping, doubts, and styles of commitment, must seek to understand how each learner construes the world and help him firm up and expand his discoveries. They must be sensitive to his readiness to move on, present incongruities to push him to the leading edge of his growth, and recognize the courage such growth requires. They must confirm the learner's membership into a community of individuals working out their own commitments as he risks each forward.

There are, then, no simple prescriptions for determining appropriate structure-openness ratios which can be pre-established, generalized, or applied to all learners. The optimal ratio will vary according to current needs and potential influence on future options; for individuals it will vary across life spans and in relation to needs at particular times in their lives; for groups it will vary with different world views and priorities and their changing needs over time; it must be modified according to areas of concentration, and in relation to multiple objectives. Probably the best judge of optimum ratio for continuity and expansion at any given time is the learner himself, once he sees the relevance of structure and openness to his own development. The process model demands focus upon the individual and provides perspective for actually realizing the ideal of meeting individual differences which has been given lip-service in the past.¹⁹ The most common question in this model would be: "What is the appropriate ratio for what kinds of learning--for whom--at what developmental stage or moment?"

movement (pp. 213-214) (William G. Perry, Jr., Forms of Intellectual and Ethical Development in the College Years: A Scheme. San Francisco, Holt, Rinehart and Winston, Inc., 1970).

It also is compatible with the theoretical model of psychosocial development proposed by Hampden-Turner, op. cit., which emphasizes investment and risking of self to make an impact upon others, achieving higher synergy through a dialectic, integrating feedback into mental matrices of developing complexity, and thereby enhancing identity (pp. 31-65).

In the practical-operational domain, the work reported by Richard M. Jones, in Fantasy and Feeling in Education, New York University Press, 1968, seems to exemplify the model, although he describes the process as "coordination of cognitive moves with emotional and imaginal ones" (p. 5). In his work with teachers, a central concern seems to involve balancing the options of "when to leave the sharing and use of affect and imagery to the child's inner life and when to deploy it into the instructional process" (p. 28). His concerns involve both cultural transmission and individual development and a synthesis of the two.

¹⁹ Traditional system requirements have made it extremely difficult for teachers to tune in to where students really are or want to be. Subject-matter curriculum "packages" and grade-level content requirements have tended in practice to negate most differences in sex, maturity, aptitude, and motivation or psychological readiness.

This does not preclude utilization of group membership, however, even though there are risks of (1) overgeneralization from the tremendous variations that exist within groups and (2) oversimplification from the fact that individuals simultaneously belong to many reference groups. Differences among groups too frequently result in "cultural encapsulation," a situation in which education can become dysfunctional through miscommunication and discontinuity of experience. Gearing curriculum to group commonalities in experiences, needs, desires, values and beliefs, pre-occupations, or ongoing direction allows appropriate entry points which can lead subsequently to more relevant individual experiences. Matching persons with situations on the basis of overlapping concern and background can minimize interpersonal gaps and provide an optimal amount of openness for generating movement into new areas of growth and toward higher levels of functioning. Appendix C-5 provides additional options for immediate research and development relating particularly to cultural encapsulation.

Subcultural groups can be classified in various ways, e.g., age, ethnic, geographical, social class, economic level, organizational or vocational affiliation, philosophical-religious premises, or other stakeholder concerns, and ratios can be established on multiple bases. For example, one set of cultural subgroups of particular relevance to value assumptions²⁰ is shown in Figure 5 to illustrate what might be termed a

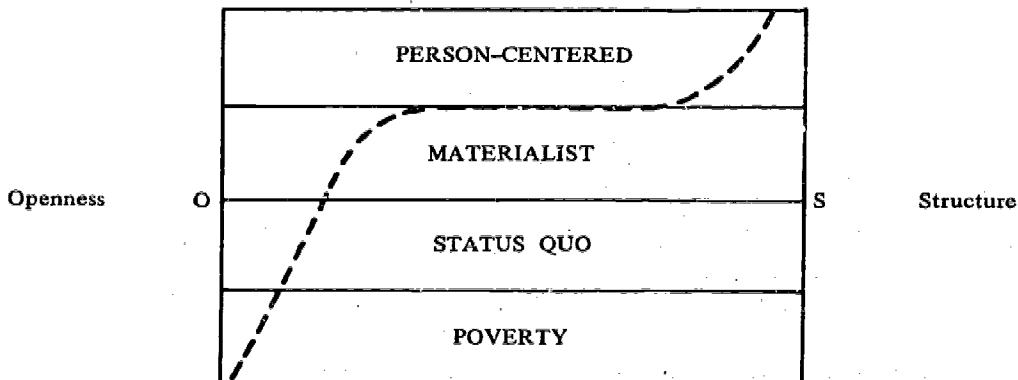


FIGURE 5 HYPOTHESIZED CONTINUITY RATIO FOR FOUR NEED-VALUE-BELIEF SYSTEM GROUPS

continuity ratio. If lower socio-economic groups tend to structure and delimit the world defensively in order to cope with forces over which they have no control, educational experiences--to be consistent with this

²⁰ Kantor, op. cit.

general approach to life--would offer continuation of considerable structure. This might be particularly true if attention were focused only on cognitive development. The two middle groups with materialistic and status-quo orientations characteristic of many people today would also be likely to experience continuity given high external structure and relatively little openness. Person-centered individuals, on the other hand, would require minimal structure and much openness for continuity.

There are other necessary considerations besides continuity, however. For example, suppose a priority concern existed for developing emotional freedom and expressiveness as a precursor to traditionally valued cognitive functioning, as an entry into more intuitive-poetic-creative cognitive processes, or as an end or desired outcome in itself. The ratio of structure and openness might be as in Fig. 6.

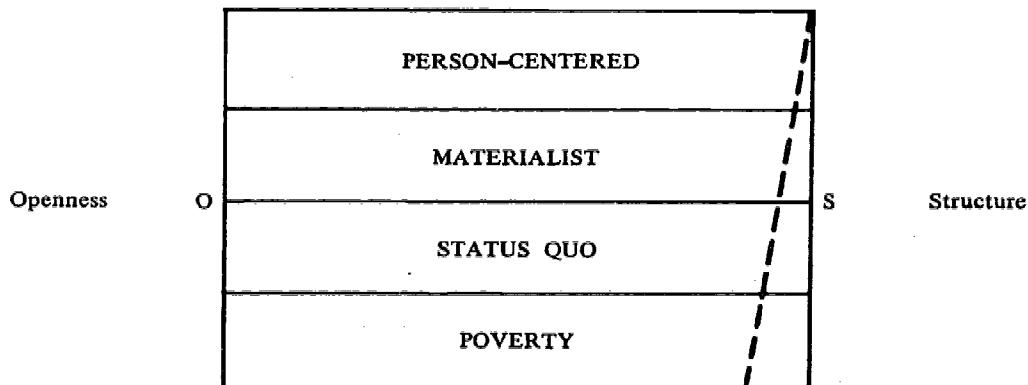


FIGURE 6 PROPOSED RATIO FOR DEVELOPMENT OF EMOTIONAL FREEDOM AND EXPRESSIVENESS

All groups, in this case, would need maximal openness with only sufficient structure to refine what has been freely expressed in a variety of communication modes. One formula would not do for all educational objectives; reconsideration of ratio would be necessary with changes in criteria and desired outcomes.

Different disciplines, areas of interest, or focus, vary in their natural affinity with structure or openness, and this provides yet another way of determining appropriate ratios. Total structure or total openness would not be likely to be optimal for growth in multiple dimensions of human functioning, i.e., in the full range of cognitive functions, emotions, and conation. Balance within a subject-matter field, across interest areas, or over time would maximize stimulation by varying

requirements, expectations, and opportunities. Modifying the ratio of structure and openness could increase both relevance of subject-matter and involvement of learners.

There is urgent need for creative, not stop-gap, action. This embryonic view of a process model for education could counteract dangers inherent in prolonged or wholesale adherence to extreme approaches, stimulate gradual system modification, and help keep open the channels to a future of our choice. The new image of the educator as a balancer-synthesizer of structure and openness--an insightful determiner of ratios to match human change and variation--could relax the present rigidification and breathe new life into the system.

Adjunct Strategies for Institutional Change

If there is sufficient willingness to risk either experimentation with innovative value-based subsystems to minimize value dissonance or implementation of a process model to reduce system rigidification, several adjunct strategies seem imperative. Even apart from the two preceding major proposals, these actions could induce changes of considerable consequence.

Support for socialization perspective. Shifting from a concept of school as the single proprietary agent responsible for education to a broader conception of socialization communities in which multiple agents share educational responsibilities is essential to O-type experimentation. This is one of the basic assumptions for operational planning in that set of beliefs. In the traditional system political representation on local school boards has not provided the continuous social dialectic and collaboration necessary either to prevent cultural encapsulation and discontinuity of experience or to allow development of shared frames of reference, overlapping world views, experience in joint participation, common commitments, or a sense of community. Pressures toward pluralism and autonomy are challenging traditional superimposition upon minority subgroups of middle-class monomorphic socialization procedures. Energies currently are being expended in struggles for political power that could be utilized constructively to develop multiple designs for more comprehensive educational models. Realistically responding to the times could lead to creation of new forms and functions consonant with cultural diversity and the macro-need to improve quality of life.

If all adults engaged in socialization of the same young people worked hand-in hand from the time these youngsters are born through early childhood and later developmental years, interpersonal gaps would be minimal and a common core of goals and overlapping concerns would emerge to strengthen cultural cohesion. Insecurity about child-rearing carried on in relative isolation,²¹ competition among agents, and shifting of blame would decrease. Awareness of the possibilities for human growth would expand. The concept of a discrete period for schooling would recede in favor of the notion that growth is continuous and life-long. Expansion into the community would decrease need for walled classrooms. Confrontation over priorities could increase understanding and appreciation of differences and allow the possibility for higher synergy to develop.

Dialogue about what constitutes a community, who are the key socializing agents, and what are their intents would evoke awareness of the intricacy with which a variety of overlapping social institutions influence outcomes of developmental efforts by any one of them. Indeed, the absence of a genuine community approach in the traditional conception of a school system relatively distinct from but obligated to serve the broader community or society has built barriers between the political, economic, religious, familial, media, and recreational arenas of community life. "Community schools" too frequently have existed in name only.

Relations with the broader community constitutes a major problem at the present time, e.g., in pre-school social intervention programs, vocational training and job opportunity, involvement in urgent societal issues and problems, political participation, and dramatic value shifts among large segments of the population. Education's isolationist stance and its tunneling of vision toward cognitive development and highly selective, objectified knowledge is in pronounced disharmony with the times. If societal interstices were established for experimental subsystems, the issue of re-entry into broader communities and society would be crucial. Anticipation of supports participants would need to make the transition and creation of necessary linkages might require some value trade-offs, particularly if the subsystem differs markedly from its larger environment. Traditionally, the school and its charges have had to fit society. This would require that society be open to change. Considerable balancing and synthesizing would be needed between subsystems and the broader environment. Long-range planning involving increasingly widening communities, flexibility, and action taken in concert seem essential. Solicitation and support for community approaches to socialization, of which formal education is only a part, seem critical.

²¹ Clausen, op. cit., p. 370.

Legitimized attention to the total individual. Primary ends and objectives must be expanded to the whole person. Discontinuous attention to development of the total being has impaired functioning and wasted human potential. Malfunctioning in neocognitive dimensions²² underlies much of current societal sickness. The survival of segmented man in a turbulent future is dubious. Any educational model seeking greater openness seems to require that man not be viewed hierarchically, i.e., with reason and physical functioning positioned as high and low priorities. An assumption of organismic unity requires equality among developmental objectives--equal opportunity for healthy functioning of all dimensions within each individual. In a process model, primacy of objectives will shift. At times affective functioning will predominate or sensory acuity and physical response will be the major aim, while at other times independent action or abstract conceptualizing will be the major ends sought. These multiple dimensions of functioning will not be considered separable, however, but more like the movement of individual dancers into momentary spotlight positions while remaining part of a fluid totality. Education traditionally has tried to deal with fragments of man and paid little heed to his multiple, simultaneous modes of functioning and developmental needs. Priorities also have been ordered on a constant basis. Since youngsters develop in these areas whether or not they are given attention, many problems have resulted that might have been prevented.

Using more than a narrow academic yardstick for success would decrease the number of those guaranteed failure in school because they follow non-academic or nontechnical aptitudes and interests. New means would be created to achieve these new ends, thereby expanding the availability of both ends and means within the institution. This would lessen use of deviant means to attain culturally valued ends.²³ Youngsters would emerge from our

²² George G. Stern, in "Measuring Noncognitive Variables in Research on Teaching," uses the term "neo-cognitive" in referring to mental processes of a less rational character, the ideational elements of which are not as likely to be available for conscious analysis. He subsumes attitudes, values, perceptual sets, and other indicators of conceptual organization and expectation under this label and does not conceive of them as purely emotional or volitional (N. L. Gage (Ed.), Handbook of Research on Teaching, Chicago, Rand McNally & Co., 1963, p. 407).

²³ Robert K. Merton describes a range of solutions to discrepancy between culturally valued ends and availability of means which seem to be widespread among today's youth, i.e., retreatism, ritualism, conformity, innovation, and rebellion (Social Theory and Social Structure, London, Free Press of Glencoe, 1957, pp. 131-160).

schools to take their place in society with more of their human potentialities tapped and actualized. A new framework for evaluation would be created, one demanding innovation in assessment techniques and concentration upon the quality of living in educational environments. Different criteria for educational effectiveness would have to be established. Variables not fully seen before would come into focus as a result of attention to total response and transaction. Focus upon life as it is experienced and felt would bring greater validity to measurement and move abstraction closer to reality.

In conjunction with a socialization perspective, expanded objectives could stimulate active involvement of youth in their own socialization. Given full acceptance of such ends as autonomy, sensitive awareness of self and others, and authentic communications, for example, young people could be helped to become increasingly aware of themselves in the process of being socialized. They would begin to see what frequently are hidden agendas of socialization agents who seek to meet the needs of the broader culture. Young people's awareness and criticism of environmental im- pingements and the intentions and values of adults who seek to influence them could help them simultaneously to perceive themselves in society and the conflicts and unresolved issues or needs of society as a whole. Such dialogue could lead to less rejection of adults, greater informed involvement in the broader culture, and a reduction of the paternalism so characteristic of formal education.

Only by legitimizing development of the subjectively experienced world of man can these internal resources be blended with the external knowledge and skills that have been educational preoccupations. Man's creativity itself rests upon the horns of this subjectivity-objectivity dilemma.²⁴ Innovators and conservatives deal differently with these worlds, the one dipping freely and deeply into the preconscious and primitive dimensions of self, and the other having limited access to these realms. Yet, it is largely the latter who have made policy decisions to restrict attention to the known, the certain, and the predictable, thereby overshadowing man's aesthetic-expressive, self-assertive needs. We can choose to strike a balance. By urging education to look inward, as well

²⁴ Rollo May stresses the importance of blending subjective-objective experiencing and proposes that "in the dialectical process between these two poles lies the development, and the deepening and widening, of human consciousness" (p. 20). His treatment of this vitally important and controversial topic is particularly pertinent to this discussion. Psychology and the Human Dilemma, Princeton, New Jersey, D. Van Nostrand Company, Inc., 1967.

as to the outside world, resulting perceptions may be less distorted, more realistic, and worthier of trust. Man can have a stronger sense of where he is and the direction in which he needs to move. Options for immediate research and development which move into the realm of holistic functioning and internal content and processes appear in Appendix D (Tables 1 and 2).

Reconstruction of language. The language of education must be restructured to reflect a broadened image of man and of the growth process, since the policy-maker's decisions are determined by his key concepts, terminologies, classification schemes, and category systems. Perpetuation of dysfunctionality is aided by the restrictive effect of language. Taxonomies based upon traditional subject matter fields, for example, tend to perpetuate segmentation. Those which imply failure or excellence in academic disciplines--remedial, gifted, handicapped, deprived, or disadvantaged--tend to sustain the narrow definition of success as academic competence. Reassessment of categories is necessary if there is serious intent to improve the quality of life and extend man's capabilities. Language limited to a narrow band of human functioning no longer is suitable for education's tasks.

Suppose, for example, people were screened and provided developmental experiences on the basis of the following classification scheme:

Mechanical intelligence	Imagery and fantasy
Bodily expressiveness	Emotional perceptivity and responsiveness
Motor coordination	Social intelligence
Sensory acuity, e.g., color, sound, tone, touch, movement	Empathy and sensitivity to problems
Curiosity	Poetic, musical, or dramatic expressiveness
Wonder	Intuitive sensing of contours and patterning among relationships
Spatial intelligence or expressiveness, e.g., ability to create forms in space	Ability to establish remote connections
Self-direction	
Leadership or model power	

Sensitivity to subtle nonverbal cues

Hypothesis formation

Definition of complex, ambiguous problems

Courage to reach into the unknown or grapple with what is tacitly known but not yet clear to self or communicable to others

The terms "gifted" and "handicapped" suddenly lose meaning in the light of these categories, the competitive academic apple cart topples, and appreciation for individuals not previously esteemed becomes possible. These are but a few of the attributes to consider in contacting and inspiring learners. For many youngsters these abilities or characteristics would provide an initial base of success and satisfaction from which to expand into currently valued objectives, and thus become legitimate and fruitful entries into semantic-symbolic functioning. Those with high verbal fluency and comprehension, quantitative ability, and histories of academic achievement also could be helped to expand into other areas.

Fully functioning individuals could have profound impact upon quality of the culture. Developing a full range of characteristics (such as in the preceding list), along with the rote memory and recall abilities traditionally emphasized, would redefine the educative task. In a systems sense, multiple "input-output" measurements of these kinds would create profiles instead of grade point averages. Explicit linkage of ends and means--so long ignored in education, particularly in the affective-attitudinal-conative areas of functioning--would revolutionize the educative process. Educative experiences, rather than being considered techniques, would become testable hypotheses about human development. Evaluative feedback would be for direction, rather than proof. All of these would work toward a developmental (or less competitive) perspective.

Redefinition of technology's task. The vast resources for production of media and materials have been bound along with the educational institution to traditional images and models. Hitching the imagination and ingenuity possible within industry to new conceptual models which encompass the whole of man offers unlimited creative possibilities. Leadership in system modification is needed from outside the institution as well as from within. Much environmental support could come through production of resources along guidelines such as the following:

Collaborate with innovative subsystems in producing a wide range of devices and materials appropriate for diverse educational models.

Blend structure and openness in a variety of ways for different learners and purposes; develop flexible ratio guides.

Seek ratios for optimal stimulation and support.

Prepare materials for use in a problem-oriented social system, rather than in an instructional model.

Achieve maximum appeal and availability for individual choice.

Seek ways of transmitting cultural knowledge and basic semantic-symbolic skills currently necessary for a technological society outside the formal school system, e.g., through educational television and other media. Seek better ways of providing for cultural continuity than through sequential instruction in a lock-step grade level organization, which may be one of the least efficient ways of learning.

Assume responsibility for presenting new knowledge as far as possible in light of the past--as an extension or modification of tradition and existing culture, rather than as isolated fragments. Seek to develop threads of continuity over time.

Endeavor to develop a sense of continuity and stability within individuals, i.e., through awareness of constancy in direction or manner of unfolding, growing appreciations and deepening understandings, increasing internal control and coping behavior, and strengthening of self across situations.

Communicate the broadest possible conception of humanness.

Penetrate man's inner world--his dreams, fantasies, hopes, and values--as well as his tools and accomplishments in the external world. Blend subjective-objective functioning to provide a clearer conception of how Man's creative achievements come about and to stimulate appreciation and use of the creative process.

Examine unsolved problems and conflict issues within a multidisciplinary perspective. Seek development of relativistic thinking, valuing, and complex cognitive structuring.

Seek to stretch tolerance of ambiguity and ability to confront incongruities and perceived unsolvables.

Make values explicit. Emphasize their diversity within the culture and the world, but search for overlap and commonality.

Point out the gaps in human achievement.

Create involvement and seek personal impact and relevance to the individual; use an experiential rather than an expository approach.

Project a full range of possible consequences and implications for the future which can result from current trends and actions.

Communicate the need for modifying images and roles of educational participants in order to make the institutional structure more permeable to change and better its chances for survival.

Comprehensive technological development in the above directions, which already has some momentum, could curtail expenditures that bring little more than variations upon the same limited themes that will serve only to perpetuate the system under the guise of "advanced technology."

Development of identification power. The most powerful resource available to education is the quality of those who participate in it. The power to involve students and release their potential--to stand out in memory as having been key influences in human development--does not come about through meeting course requirements or conforming to stereotypic role requirements. Just the contrary seems more the case. Those departing from expected behaviors who come through to those about them as individuals with vitality and verve seem most able to influence the young. They either make personal contact by the way they relate and the needs they fulfill or by the image they project of how life can be approached with effectiveness. If adults are highly involved, deeply committed, and growing--transcending their present bounds--they become attractive as models. In the process of asserting and strengthening their own sense of personal identity they point a direction for the young, who also seek identity, thereby increasing their potential to be of influence. Students who are ready and able to respond become open to internalization of that adult's values, adoption of his cognitive style and attitudes, and his mode of relating to others. Influence potential of educator personalities is an untapped resource.

The existence of negative, unattractive educator images cannot be denied.²⁵ The extent to which such negative images undermine the effectiveness of education is not known, but it likely is considerable--and both obvious and subtle. The extent to which such images have basis in

²⁵ Past low status and a public servant role clearly have existed, and it is easy to recall vivid verbal images commonly directed their way: "Old maid school teacher;" "Ineffectual, fence-straddling administrator;" "What can you expect from educators?" "You can't rely on teacher judgment;" "Absent-minded professor" or "ivory tower academician;" "Those who can, do; those who can't, teach."

fact is worrisome. There may be more closure, rigid role-playing, and emotional distance in the system than anyone would care to admit. Unfortunately, an unwary public critical of those struggling within a dysfunctional system may be contributing to perpetuation of such behaviors and attitudes. Images, after all, are at the core of self-perceptions, personality, self-fulfilling prophecies, expectations, and pressures to conform; they mirror beliefs and values. Of great import to a democratic culture is the fact that authoritarian models constitute perhaps the most dysfunctional factor in education. Their role dictates that they assume responsibility for and control over learners, which contradicts professed core values of the culture. Humanistic models--persons in society with a strong sense of community--who seek an identity of their own, and can trust, care, and give responsibility are democratic models.

Policy decision to revise criteria for educator recruitment and to establish a highly selective approach to screening seems essential for innovation. The teacher shortage appears to be ended.²⁶ Personality characteristics that hold potential for system modification, rather than defense, are needed, as are biographical histories revealing early development of a propensity for more open life-styles. Change from within the system would be furthered if the following characteristics were added to requirements for knowledge competency:

Involvement (sense of destiny or meaning in life; direction)

Fully-functioning (expressive, integrated)

Self-confident (trust in self as precursor to trust in others)

Creative-intuitive-imaginative functioning

Action-oriented; independent; self-assertive

Beliefs consistent with action

Responsibility

Appreciated for individuality in past developmental experiences

Sense of belongingness (acceptance of own need to be a part of)

Emotional awareness and sensitivity to others

²⁶ An article in the San Francisco Chronicle, June 28, 1970, p. 26, reports that, according to the U.S. Office of Education 16th annual school survey, the nationwide shortage of public school teachers since World War II is now officially ended.

Enjoyment of solitude (acceptance of own a-partness or separateness)

Intrinsic satisfaction, rather than competitive motivation

Sensory-physical vitality

Variations in performance (highs, lows, and plateaus as evidence of freedom to use internal resources and regenerate them, rather than perform stereotyped roles)

Problem-solving approach to life

Problems viewed relative to particular situations or contexts

Policy action to create this new image of the educator--one that is consistent with studies of eminent, creative, self-actualizing, or open individuals--offers far greater use of human resources than exists at present. Within a belief or value system frame of reference personality is of central concern; values, after all, come alive and are transmitted or modified through human personality.

Conclusions

Whether education can alter itself enough--in time--depends to great extent on the boldness and perspective in the immediate future of policy-makers at all levels of the system. It seems imperative to get outside of conventional conceptualizations. It is toward this end that alternative models of education illustrative of "structure" and "openness" have been explored. The meaning of these global constructs for policy action has been set forth in their application to current educational issues and in implications drawn for immediate and long-range planning. Specific steps toward the necessary drastic modifications are possible.

Certain insights of primary importance have emerged in this analysis that need to be emphasized as a precursor to action of any kind, whether it be of quantum leap proportions or to achieve more gradual modification, or a bit of both. These are:

- (1) Power in adaptation must be distinguished from mere adjustment to relentless pressures over which man has no control. Power comes from modification relative to a clear sense of direction and guiding image; reconstruction of beliefs and attitudes in the face of value shifts and forces toward change must be on this basis.

- (2) The vision that combines discerning foresight with a sense of history and awareness of the values at stake may be the most important attribute of the policy-maker.
- (3) What is needed most is to shift from a focus on technology and means to a value base. Using philosophy as a source of basic assumptions and paradigms allows us to create images of what might be, rather than be restricted only to what is.²⁷
- (4) Assumptions about the nature of man must be made explicit.²⁸ These basic roots of human action do determine what a man sees and how he behaves. Underlying assumptions are at work at the present time, but too often they remain implicit, unknown, uncontrolled, and uninvestigated.
- (5) From underlying assumptions, language tools (signs, symbols, categories, concepts) can be created to match the image.
- (6) Explicit assumptions and related language and category tools derived from them must be made the basis for imaginative creation of new programs. Policy-makers must be aware of their own value preferences and maintain a dual-sighted focus upon values and latent dangers inherent in basic assumptions,

²⁷ The sets of assumptions presented in this paper have been for illustrative purposes. Alternative S represents a set of beliefs largely preoccupied with the structure and means of transmitting public knowledge and minimal cognitive skills. Alternative O presents a conception of human nature and functioning under relatively free conditions. The process model, in which both alternatives are nested, seems isomorphic with individual functioning within the reality of societal constraints and in light of the need to socialize the young into the broader culture. In a sense, the three models seem geared to maintenance of the existing social order, creation of a new one, or gradually modifying the existing one.

²⁸ Education's preoccupation with technology and methodology is no accident. It appears to represent direct avoidance of the value controversy natural to a pluralistic, democratic society. Techniques and methods are only tools. Until man can view them relative to clear-cut ends of his own creation, the issue of who is slave and who is master will remain, the means of education will continue to be substituted for ends, and the institution will be characterized by circularity and fuzziness.

particularly when any one assumption is removed from other assumptions to which it is related.

- (7) There must be rigorous consistency of ends and means involving the total being and his full potential as a human. From this ordering can come consonance of idea and action.
- (8) Individuals do not develop apart from the interpersonal and societal realities within which they function.
- (9) A contextual-transactional approach seems necessary to fuller understanding of the complexities in human development,²⁹ e.g., the impact of multiple intra- inter- and extrapersonal influences upon behavior, man's holistic and simultaneous functioning in multiple dimensions, and his infinite variation.
- (10) Reasoned movement into a future of our choice must be based upon conscious attention to both societal and individual needs; continuous adjustment of the ratio of structure to openness constitutes a potential binding force of balance necessary for survival. Policy decisions that will influence quality of life in both future education and society could reflect either extreme or could represent a synthesis of the two.

What, in fact, will come into being rests upon the values, visions, and courage of man. The urgency of modifying all our institutions and creating new and effective social structures is clear.³⁰ It seems

²⁹ The guiding premise in contextual research, which is essentially a field theory approach to the social sciences, is the desirability of moving from the whole to its parts--from entirety to specificity--and back again to the whole in order to allow redefinition of the complex in greater detail and at increasingly deeper levels.

³⁰ John Platt, op. cit., in discussing the criticalness of the current decade, writes, "Whether we have 10 years or more like 20 or 30, unless we systematically find new large-scale solutions, we are in the gravest danger of destroying our society, our world, and ourselves in any of a number of ways before the end of this century" (p. 6). If we survive, probably no human institution will continue unchanged for another 50 years in the dangerous transition period ahead. According to him, there will be "widespread rearrangements in all our ways of life everywhere, from our patterns of society to our whole philosophy of man" (p. 13).

imperative that we begin thinking in terms of system modification, rather than maintenance; that we take immediate action to create new designs and possibilities within the institution that are humane and consistent with our ideals; and that education be viewed as an active catalyst, not just a responsive agent or societal pawn. Education must re-examine its integral relationship not only with our own societal system, but also with the larger world, and reach out to create and nurture rearrangement of institutional relationships necessary to actualize our finest visions. Achieving the necessary openness and flexibility for growth and expansion is a priority problem for which education (both in the broad and formal sense) must assume considerable responsibility, and there is no time to lose.³¹

Three major proposals for policy action have been presented to meet this responsibility: (1) quantum leap experimentation with innovative subsystems based on images of man, (2) a meta-model of a guided dialectic between structure and openness (process model for more gradual system modification),³² and (3) selected adjunct strategies to serve as necessary lubricants for both short- and long-range changes. Placing these in a time frame suggests immediate and long-term possibilities that might result from such actions and illustrates the necessity of continuity in policy determination. Long-term outcomes, of course, are subject to interim events and forces. The brief projection in Table V³³ illustrates how planning might begin.

What is needed first is leadership commitment to diversity, flexibility, guided change, and full development of the total human being, followed by immediate action to produce a clearer sense of direction and give birth to ideas that can be adopted on a wide enough basis to make a difference. The enormous task of large-scale innovative action,

³¹ Platt, *ibid.*, says that over half of the major social innovations since 1940 were adopted or had widespread social effects within less than 12 years, and offers the hopeful thought that time to adopt new structural designs may be shorter than we have been led to believe (p. 15). Nevertheless, he stresses that the task is huge and time is short (p. 17).

³² A final point of emphasis: the essential difference between these two constructs is not structure vs. non-structure, as is often assumed, rather it is a matter of who does the structuring, why it is done, and who sets the beat.

³³ Platt, *ibid.*, pp. 10-11. This time frame is based upon Platt's projections of man's crisis problems.

Table V
ILLUSTRATIVE TIME PROJECTION OF PROPOSALS FOR ACTION

	1-3 Years	4-10 Years	11-30 Years
Innovative Subsystems Based on Images of Man	<p>Immediate release of extreme subgroup frustration</p> <p>Create demand for assessment of basic commitments</p> <p>Development of new designs and models</p>	<p>Provide sources of knowledge about human development</p> <p>Source of consultants for desired changes</p> <p>Create societal support</p> <p>Rearrangement of institutional couplings and interactions</p>	<p>Federation of pluralistic models as guiding goal</p>
Process Model for System Modification (S/O Ratio)	<p>Immediate flexibility throughout institution; adaptation of model in diverse ways at all levels</p>	<p>Continuous emergence and testing of structural modifications</p>	<p>Continuous emergence and testing of structural modifications</p>
Adjunct Strategies for Institutional Change	<p>Immediate shift in focus from limitations of traditional conceptions</p> <p>Open up new R&D frontiers</p> <p>Create need for new research models and instrumentation</p>	<p>Continuous emergence of new adjunct strategies that grow out of prior implementation and reshaping</p>	<p>Continuous emergence of new adjunct strategies that grow out of prior implementation and reshaping</p>

however, requires involvement and commitment at the grass-roots level, as well as skillful leadership. The real challenge of dissemination policy lies in the faith leaders must have in the common man--in the teachers, parents, administrators, community representatives, or students--actively and creatively to confront their immediate problems in terms of whatever broadened perspective leaders can provide. For example, large organizing ideas such as "structure" and "openness" can generate innovative power; they can transcend situations at any point in history. They will have different meanings for different people facing different problems, which makes for broader utility. Widespread discussion of these constructs can stimulate genuine change and loosen the structure and interaction of all subcomponents in the system. Another beauty of such large-scale ideas is that they can transcend time. In 1980 "openness" may require a different set of specifics to match the circumstances than those described in the Alternative O model, which has meaning for the present.

The tendencies to think in terms of "happy endings," to equate change with progress, and to avoid tragedy are strong in our culture. It seems evident that widespread dissemination of the urgency for action in order to survive must be commenced immediately in order to challenge and mobilize a sense of creative potential in the practitioners who must induce change. Technology, simple prescription of techniques, or exportation of curriculum packages no longer will accomplish what must be done. The time has come for putting ideas and images to work in mobilizing human intelligence and motivation. It must be realized that "the only real source of power in the world is the gap between what is and what might be."³⁴

³⁴ Ibid., p. 17. Platt reiterates this powerful idea in "How Men Can Shape Their Future," paper presented at the International Future Research Conference, Kyoto, April, 1970. Many of the ideas developed in this chapter on "Implications" are consonant with the general framework for the process of social design and change which he set forth in that presentation.

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Appendix A

THESIS: STRUCTURE

Table A-1

ALTERNATIVE S: GUIDING PRINCIPLES AND PRACTICES BASED ON IMPLICIT ASSUMPTIONS

	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Man</u>	<p>Can detach himself from his own physical being and relatedness to nature</p> <p>Highest capability is abstraction and symbolism</p> <p>Basically passive and receptive to environmental stimuli</p>	<p>Linkages with natural world and physical functioning unimportant</p> <p>School's responsibility is to develop the mind to highest capacity</p> <p>Learner must be stimulated</p>
<u>Education</u>	<p>Formal institution for transmitting culture</p>	<p>Focus on past</p> <p>Functions apart from society</p> <p>Prepares for future life in the culture</p> <p>Acquisition of cultural knowledge, skills, and core values</p>
<u>System</u>		<p>"Academic" environment detached from other societal institutions</p> <p>Incremental vocational focus</p> <p>Knowledge and skills applied in future</p> <p>Bodies of knowledge, disciplines, subjects, content areas</p> <p>Environmental limits set by physical plant and organization</p> <p>Administered by hierarchical authority</p> <p>Controlled by specification, order, and regulation</p> <p>Top-down task assignment, supervision, and management</p> <p>Grade-level groupings</p>

Table A-1 (continued)

<u>System</u>	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Individual</u>	<p>Fits the system</p> <p>Must master common learnings</p> <p>Moves according to structure, plan, and fixed time schedule</p>	<p>Communication of rules and regulations concerning expectations and acceptability</p> <p>Minimal grade requirements</p> <p>Common goals and materials for all</p> <p>Time held constant</p> <p>Prescribed and set procedures</p>
<u>Teachers</u>	<p>Formal socialization agents</p>	<p>Promotion, graduation, certificates, and degrees</p> <p>Instruments of culture</p> <p>Rewards of tenure, salary increments, fringe benefits</p> <p>Formal expected role of instructing, directing, and supervising</p> <p>Formal authority role with right to act upon pupil without his permission</p>
	<p>Responsible for educating and motivating pupils</p>	<p>Classroom the domain of authority</p> <p>Must do something to pupils to involve them, to get and keep their attention, or elicit responses from them</p>

Table A-1 (continued)

	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Teachers</u> . . .	Organize, plan, and present what is to be learned	Manage resources Prestructured materials
		Lesson plans and evaluations
		Group presentations
		Expository, didactic, deductive
	Direct and judge pupils	Assignments and grading
		Continuous addition of new tasks to keep pupils constantly busy
		Keep students task-oriented, avoid non-essentials, and prevent affective contagion
		Group management for orderliness
		Accentuate commonalities and minimize differences to avoid conflict
<u>Pupils</u> . . .	Conform to common cultural norms, mores, and expectations	Behavior in school is good or bad according to appropriate pupil role behavior; behavior outside of school not teacher's responsibility
		Punishment for nonconformity
		Dependence upon teacher expectations and directions
	Cooperate with teachers and acquiesce or comply with their requirements	

Table A-1 (continued)

	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Pupils</u>	<p>Attend to what is presented, receive and respond appropriately</p> <p>Learn the virtue of work</p> <p>Control emotion and behavior</p> <p>Utilize the common language of those in charge</p> <p>Capable of similar sensory response to same situation or experience</p>	<p>Listen, watch, do what they are told</p> <p>Avoid unique, idiosyncratic, or controversial responses</p> <p>Diligent, businesslike, no time for play</p> <p>Deny or suppress negative feelings</p> <p>Adapt away from earlier learned language patterns</p> <p>Try to understand what is being communicated</p> <p>"Achievement motivation" considered a desire to do what adults expect and school requires</p>
<u>Curriculum</u>	<p>Priority to rational-cognitive functioning</p>	<p>Focus on semantic-symbolic</p> <p>Segmentation of day into periods</p> <p>Time blocks for systematic exposure to content</p>
	<p>Limited attention to physical-motor development, social skills and aesthetics</p>	<p>Traditional sports and play periods to release physical energy</p> <p>Emphasis on good manners</p>

Table A-1 (continued)

<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Curriculum</u>	Occasional periods or electives in arts, particularly if prior training indicates talent
De-emphasis on sensual, relational, mystical, imaginative, or affective	Distract attention from or ignore physical-sensory, fanciful, religious, or feeling responses
<u>Instruction-Learning</u>	Neutral, noninflammatory knowledge that will keep atmosphere intellectual, noncontroversial, unemotional
Structure organizes world for the learner	External organization and categorization of important bodies of knowledge
Facilitated by step-by-step building block approach	Restructured materials and problems clearly defined by teacher or materials
Simplified by analysis or reduction to parts	Careful explanation and instruction
Improved by individual variation in rate and self-scheduling	Eliminate extraneous and confusing
Stimulus-response paradigm appropriate	Work independently toward common goals
<u>Evaluation</u>	Curves and grades
Comparisor.	External criteria
Based on objective standards	Paper and pencil tests

Table A-1 (continued)

	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Evaluation</u>	In terms of group norms or standardized tests	Criterion referenced tests
	Conducted by those responsible for teaching	External locus of evaluation
	Based upon what teachers expect students to learn and what is required	Remedial, diagnostic tests and work Ability grouping and IQ to determine goals and requirements
		Success defined by acquiring knowledge and skills presented
<u>Critical variables</u>	Methods that enhance academic achievement and acquisition of "basic" skills	Good teachers employ best methods, i.e., result in student academic performance
		Search for single best method
	Verbal transactions	Preoccupation with what is said
	Monetary input for physical resources	Community support and production of results desired by constituents
	Teacher-pupil ratio	Class size
	Pupil intelligence	Testing programs for IQ as predictor of school success
	Subcultural background of pupils	Expectations of success

Table A-1 (concluded)

	Implicit Assumptions	Guiding Principles and Practices
<u>Critical variables</u>	Previous training and skills	Aptitude and potential
<u>Research</u>	Variable focus rather than situational context focus	Fragmented focus, primarily on methods employed by teacher

Attention to as few variables as possible, primarily what facilitates or impedes academic growth

Limited to overt, easily observed, and highly agreed upon

Assessment of how effectively students learn what programs are designed to teach

Examine what is undebatable, quantifiable, and reproducible

Traditional scientific approach of physical sciences

Single criterion of academic achievement

Appendix B

ANTITHESIS: OPENNESS

Table B-1

ALTERNATIVE O: GUIDING PRINCIPLES AND PRACTICES BASED ON IMPLICIT ASSUMPTIONS

	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Self . . .</u>	<p>Is at the center</p> <p>A unifying force in personality</p> <p>Known in present awareness</p> <p>Unique</p> <p>As result of sensing, feeling, and imaging transactions</p>	<p>Central focus upon self, i.e., self-confrontation and enhancement, self-understanding, self-acceptance, and self in different situations</p> <p>Develop conscious awareness of individual uniqueness and unity and appreciation of richness variation can provide</p> <p>Exploration and sharing of the subjective</p> <p>Develop appreciation of natural world</p> <p>Provide communion and sense of relatedness with nature (sensory, meditative, reflective)</p> <p>Retention enhanced through creativity</p> <p>Response to products is response to person</p>
<u>Living . . .</u>	<p>Is transacting with the environment</p> <p>Dynamic and emerging</p>	<p>Optimal stimulation, accommodation, and assimilation; challenge and provocation just beyond what can be fully comprehended, even though enjoyed</p>

Table B-1 (continued)

Implicit Assumptions	Guiding Principles and Practices
<u>Living . . .</u> Growing, transcending, and creating In the present Holistically	Uncertainty, ambiguity, voids, or gaps as basis for beginning search Self-selection and exploration Invite total involvement of individuals
At different levels In multisensory modes	Translation and transfer from one level or type of functioning to another for richer interpretation of experiencing
Based on idiosyncratic perceptions and responses According to own growth rhythm	Sharing of individual reactions, selections, and interpretations Emphasize idiosyncratic developmental patterning
Naturally playful	Encourage play for its own sake
<u>Freeing-expressing . . .</u> A process phenomenon	Focus on responses while doing, thinking, or being, i.e., "What is happening right now?"
	Encourage multiple modes of expressing and experiencing (multi-level and multi-sensory)

Table B-1 (continued)

Implicit Assumptions		Guiding Principles and Practices
<u>Freeing-expressing</u>	Subjectively experienced	Focus inward to own reactions and functioning
<u>Unifying-integrating experiences</u>	<p>Reordering, resolving, assimilating or integrating</p> <p>Intuitive sensing of patterns, relationships, and possibilities</p> <p>Occurs in the present</p> <p>Internally experienced linking of idea, affect, image, attitude, bodily responses</p>	<p>Opportunities for creative synthesis or integration</p> <p>Incubation periods and time for reflection</p> <p>Utilize pre- or unconscious ordering</p> <p>Present orientation, i.e., "Where am I right now?"</p> <p>Experiencing followed by conceptualizing</p> <p>Restructuring experience (rather than adding information)</p> <p>Emphasis on feelings of unification and wholeness accompanying resolution, definition, or transcendence</p> <p>Subjective assessment in terms of growth and change, continuity and variation</p>

Table B-1 (continued)

<u>Personal Meaning . . .</u>	<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
From blending of subjective-objective worlds	Experiencing internal responses and needs, extending outward to external world, and relating the two	
Can be tacit and in process of becoming	Patience for what is emerging and cannot yet be expressed to others	
Can come from conversion of own reality and inner truth into symbols	Sharing of what is most real to self and others	
Is an interpretation of the world	Proficiency in achieving meaningful, personal synthesis, i.e., making sense out of experiencing and attaching labels to <u>felt</u> meanings	
Linked to language and cognitive patterning	Develop and modify own cognitive structurings; encourage readiness for internal structuring	
Individually known and private	Let people <u>be</u> with their experiencing; voluntary sharing	
Partially sharable when consciously, objectively conceptualized	Assume more than what is verbalized Provoke through inquiry, clarification, probing	
	Expand meaning to wider, deeper, more personal levels	

Table B-1 (continued)

<u>Implicit Assumptions</u>	<u>Guiding Principles and Practices</u>
<u>Changing . . .</u>	
Is natural	Encourage acceptance of change
Results from actively transacting	Engagement via problem-definition and responsibility for own growth
Moving in a direction	Develop awareness of trends and patterns
By intending	Locus of control within educational participants (adults and children); choice
Through visions created by choice and values tested in experience	Develop readiness for risk-taking
From exertion of right to act (or not to act)	Encourage dreams and desires
By assuming personal responsibility	Responsibility learned by being given and accepting it; accept consequences of not acting
Is facilitated by subjective judgment	Allow maximum responsibility for maturity and readiness levels
Individuals . . .	Encourage development of internal value systems and locus of standard-setting and evaluation
Are the highest authority	Self-determination
Create and constitute systems	Individual health affects system well-being

Table B-1 (continued)

Implicit Assumptions	Guiding Principles and Practices
Individuals . . .	Provide input to systems which continually modify them
	Consciously adapt and fit the environment to themselves
	Vary time for completion, interest, and inspiration
	Move by choice and need within the environment
Interpersonal reality . . .	Social nature stemming from nurturant relationships in early life
	Simultaneously separate from and related to others
	Exists and behaves in a human context

Table B-1 (concluded)

Implicit Assumptions	Guiding Principles and Practices
<u>Collaborating-communicating . . .</u> From a feeling of belonging	Joint participation and decision-making Working for common goals Group shares responsibility for well-being of individual members Analysis of own group functioning Situational approach to discord Dialogue Sharing frames of reference Tune in to body, facial, vocal cues, and silences Assume complexity in interpersonal transactions and need for subjective data Focus upon nonverbal as well as verbal Develop awareness of contracommunication (verbal-nonverbal discrepancies) Search for common denominators of human experiencing

Appendix C

COMPARATIVE RESEARCH AND DEVELOPMENT

Table C-1

OPTIONS FOR RESEARCH AND DEVELOPMENT: BELIEF SYSTEMS AND BEHAVIOR

Classification	Suggested Areas for Focus	Relevance to Current Education
Belief Systems	Consistency and organizational patterning	The completeness, consistency or compartmentalization of beliefs should influence consistency and rigidity of behavior.
Differentiation-integration-centrality of elements		Components which particularly stand out or comprise the core of belief systems are likely to induce priority actions based upon these key valuations. The fact that items are included is not as important as their centrality.
Ego-involvement		Similarly, the extent to which individuals are emotionally involved with beliefs and actions--or personally threatened--likely has a pronounced influence upon behavior.
Compatible cognitive style		Probably closed systems are accompanied by more rigid adult cognitive styles. If so, this likely creates ceilings and bounds for cognitive growth of students.
Influence on affective functioning		Systems which deny or derogate affective freedom probably result in limited warmth and high contracommunication, i.e., discrepancy between verbal and nonverbal uses.
Intra- and inter-personal acceptance or rejection		Similarly, denial of one's own feelings will influence sensitivity to others.
Communication styles		Hierarchical and authoritarian belief systems likely result in one-way communication, whereas more open systems probably involve more dialogue or two-way communication.

Table C-2
 OPTIONS FOR RESEARCH AND DEVELOPMENT: HUMAN ELEMENT IN DIVERSE MODELS

Classification	Suggested Areas for Focus	Relevance to Current Education
Participant Characteristics	Vitality of participants	Attractiveness and vitality of both adult and peer models may be a significant influence in the extent to which values and behavior are taken on by others.
Congruency-discrepancy of cues		Authentic relating, rather than double messages, may be a powerful variable in the efficacy of educators and their programs.
Role Restriction	Stereotypes	Strong images and attitudes about self and others need to be understood and modified, since they are used as control mechanisms, create barriers to communication, and influence self-fulfilling prophecies, aspiration level, and expectations.

Table C-3

OPTIONS FOR RESEARCH AND DEVELOPMENT: HUMAN TRANSACTIONS IN DIVERSE MODELS

Classification	Suggested Areas for Focus	Relevance to Current Education
Interpersonal Communication	Critical intangibles	Powerful generative-destructive potential lies in the offering and acceptance of respect, trust, and belief in human potential or in their withholding or rejection.
Two-way transactions		Simultaneous and anticipatory communication may be more isomorphic with reality than a stimulus-response model.
Dynamic process variables		Contextual research and a gestalt perspective seem essential to determination of the most critical variables.
Perceptual consonance-dissonance of participants		Message match-mismatch likely is vitally important in the sharing of frames of reference.
Awareness of interpersonal dynamics		Tuning in to emotions and attitudes is vital to prevention of interpersonal gaps.
Sensitivity-empathy		Communication, access to emotions, acceptance of self and others are critical variables in social development.

Table C-4

OPTIONS FOR RESEARCH AND DEVELOPMENT: COLLABORATION AND CONATION

Classification	Suggested Areas for Focus	Relevance to Current Education
Sense of Community	Felt belongingness	Meeting social-emotional needs may be prerequisite to other kinds of development.
Modes of participating		Education traditionally has been hierarchical, rather than egalitarian, with limited freedom for self-direction.
Joint problem-solving		Genuine problem confrontation, as opposed to getting students to do what adults want them to in a so-called "democratic" way, demands giving students power to make decisions of real importance.
Motivation	Optimal stimulation	Seeking optimal variability in sensory input, timing, and nature and quality of experience, e.g., structure-openness ratio, presents challenge to educators.
Choosing and intending		Freedom to choose, act, assume responsibility, and test self in experience may be a powerful inducer of conation.
Internal evaluation		The power of internal control and locus of evaluation has had little opportunity for trial in traditional education.
Conceptual-affective dissonance		Optimal disequilibrium could be a powerful instigator of conation and aspiration.
	Impact of images, models, and value commitments	What people aspire to be may be far more crucial in human development than what educators determine or desire for them.
Involvement		Felt involvement and nonverbal indicators of intense interest can be legitimate indices of the effectiveness of educational experiencing.

Table C-5

OPTIONS FOR RESEARCH AND DEVELOPMENT: CULTURAL ENCAPSULATION

Classification	Research Area	Relevance to Current Education
Subcultural Commonalities and Differences	Cultural blindness-awareness	Background experiences make us subculturally bound, yet education largely has ignored this fact in dealing with the disenfranchized in society.
	Overlap in experiential background as basis for sharing frames of reference	Different basic priorities, conceptualizations, or world views likely lead to dysfunctional or ineffective education; communication is influenced by sharing of common space.
	Readiness or need for structure or openness as bases for matching persons and situations	Life histories influence compatibility with structure or openness of individuals and groups, e.g., administrators with communities and teachers, teachers with students, teachers and students with peers, and parents with school personnel.
	Nonverbal communication styles	Subcultural backgrounds are likely to produce diverse modes of communicating that are of utmost importance in determining what learners experience, e.g., cumulative misreading of intent and transmission of subtle signals that may be perceived as rejection.
	Covert transmissions	Goals can be defeated and practices undermined by messages ambiguously received and unknown even to the sender.
	Masking behaviors	Subcultural groups are likely to learn to mask emotions in different ways; educators should understand these differences to prevent interpersonal gaps.
	Space-time orientations	Subcultural differences in orientations to present, future, or past and sensitivity to interpersonal proximity and physical environment may be quite at variance with our traditional uniform approach.
	Selecting and responding to multisensory stimuli	Possible subcultural differences in sensory acuity and physical responsiveness could make considerable difference in responsiveness to environmental stimuli.

Appendix D

INDIVIDUAL RESEARCH AND DEVELOPMENT

Table D-1

OPTIONS FOR RESEARCH AND DEVELOPMENT: HOLISTIC FUNCTIONING

Classification	Suggested Areas for Focus	Relevance to Current Education
Human Variation	Growth rhythms and patterning in multiple modes of functioning	Chronological and grade-level progression may be inappropriate for different individuals and kinds of development; readiness might profitably be extended beyond semantic-symbolic readiness.
Experiencing and conceptualizing		The implicit assumption that learners exposed to the same experience will respond and abstract from this exposure in the same way may be of disservice to many who pass through the schools.
Characteristic modes of expression		Imagery, fantasy, movement, poetic, pictorial, sound, spatial, and other emotive tendencies could provide links to improved communication and development of special aptitudes.
Intrinsic satisfaction		What learners find personally satisfying and joyful likely is a critical variable in the educative process. The extent to which learners feel satisfaction from growth and joy in educational experiencing could be one criterion of the effectiveness of programs.
Intuition-integration		Emphasis upon deductive-analytical cognitive processes has not allowed us to move sufficiently into creative skills and functioning which draws more heavily upon concepts whose sources are not so readily known, e.g., the preconscious, affective or tacitly known.
		Sensory to symbolic, symbol to image, movement to word, concept to pictorial presentation, thought to feeling translations, etc., may have tremendous potential for creative-holistic functioning.
		Translation from one mode of functioning to another

Table D-2

OPTIONS FOR RESEARCH AND DEVELOPMENT: LEGITIMIZATION OF INTERNAL CONTENT AND PROCESSES

Classification	Suggested Areas for Focus	Relevance to Current Education
Subjectivity	Subjectively felt validity, need, and relevance	Individuals are the best judges of the impact of their personal experiences.
	Intra-personal communication	Getting in touch with self is basic to interpersonal communication and awareness of change and growth.
	Subjective-objective blend	Direct linkages of affect, image, fantasy, bodily response, and other intrapersonal data with external, public knowledge offer potential for both relevance and retention.
	Personal meaning	Encouragement of idiosyncratic response and meaning and sharing what is personally relevant can enrich educational experience for all and develop appreciation of individual differences.
	Unity with nature	Reinforcing physical origins and relationship to the natural world may be one of the most relevant educational approaches because of potential strengthening and unification of the self via the experiencing of this relatedness.
	Creative process	To act upon or do something <u>with</u> is to make something one's own; to synthesize and build from components in a unique way is highly relevant to the individual.
	Defining personal life problems	Focus upon emerging and persisting problems in their entirety--affective, attitudinal components as well as rational dimensions--is by definition relevant to the individual.
	Emotional expressiveness	This might well be one criterion of the effectiveness of educational programs, e.g., evidence of aliveness, feeling of psychological safety in the environment, the repertoire of affects available for interpersonal transaction, and the authenticity of educational participants.

